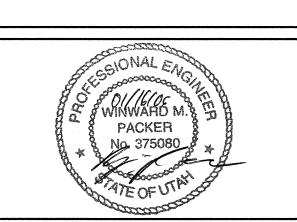


ROBERTS SIMONSEN

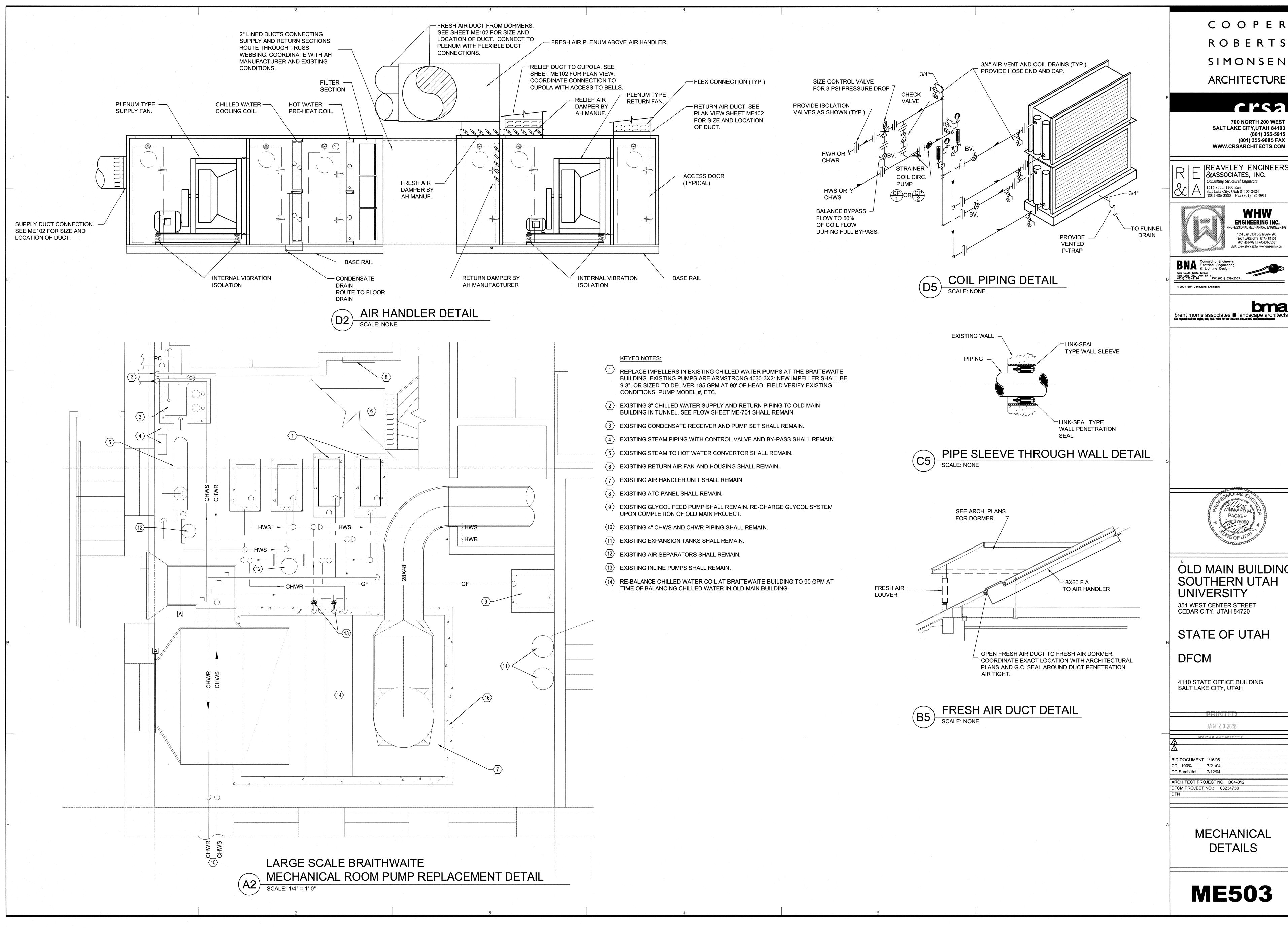
> crsa **700 NORTH 200 WEST SALT LAKE CITY, UTAH 84103** (801) 355-5915

REAVELEY ENGINEERS &ASSOCIATES, INC.

bma



OLD MAIN BUILDING



ROBERTS SIMONSEN ARCHITECTURE

**700 NORTH 200 WEST SALT LAKE CITY, UTAH 84103** (801) 355-5915 (801) 355-9885 FAX

REAVELEY ENGINEERS

bma

OLD MAIN BUILDING

									<i>J</i>	. 9												Т																					~	
	AIR HANDLING UNIT SCHEDULE																																											
SYMB	BOL L	LOCATION	COOLING CFM	OA CFM	HEATING CFM	W (IN.)	L (IN.)	H (IN.)	WEIGH (IN.)	IT ES	SP I	S 1P V	OLT P	FAN PHASE	CYCLE	ESP	RE P   HP	TURN VOL	FAN T PHA	ASE CY	CLE F	MAX AIR PD. IN WG	TOTAL MBH	TONS	EDB	EWE	C)	W COO B LW	LING CO	OIL CAPA MAX '	ACITY①( WATER D (FT.)	EW/T I	TW-	MAX AIR PD	МВН	EDB	LDB	OT WAT	TER PI M MA (2)	REHEAT CO X. WATER PD (FT.)	OIL (7) WATER TEI	R INLET   MP	WATER OUTLE TEMP	MANUFACTURER
AH 1		ATTIC	18,645	4,045 (8	15,850	4	4	4	(5)	3'	, ,	25	208	3	60	1.5"	10	208	8 3	3	60	0.56	480	40	80	65	56.	.5 55	95		8	45	55	0.1	_	60	90	42	2	10.0	1;	80	152	HAAKON

- 1 MINIMUM 4 ROWS.
- 2 WATER VELOCITY SHALL BE BETWEEN 1.5 FPS AND 3.0 FPS
- 3 VFD BY DIVISION 16.
- 4 AIR HANDLER SHALL BE INSTALLED AS A RETURN SECTION AND SUPPLY SECTION CONNECTED BY DUCTWORK. SEE DETAIL C2/ME504. RETURN SECTION SHALL NOT EXCEED 150"x91"x88". SUPPLY SECTION SHALL NOT EXCEED 191"x91"x88". BOTH SECTIONS SHALL BE SENT WITH SHIPPING BREAKS FOR EACH COMPONENT.
- 5 SUPPLY SECTION SHALL NOT EXCEED 7000 LBS. RETURN SECTION SHALL NOT EXCEED 5000 LBS.
- 6 PROVIDE WITH 40" ROUND BELLMOUTH COLLAR OUTLET. SEE DETAIL D2/ME504. COORDINATE EXACT OUTLET LOCATION WITH CONTRACTOR AND FIELD CONDITIONS.
- 7 COIL FACE VELOCITY SHALL BE LESS THAN OR EQUAL TO 500 FPM.
- 8 COORDINATE WITH ATC TO PROVIDE AIRFLOW MEASURING STATION TO MAINTAIN MINIMUM OUTSIDE AIRFLOW.

			EXHA	UST FA	N SCH	EDULI		
SYMBOL	LOCATION	CONTROL TYPE	MIN. ① C.F.M.	STATIC PRESSURE IN. W.G.	POWER	VOLTS	MANUFACTURER & MODEL NO.	COMMENTS
EF 1	ATTIC	2	2200	1.25"	1-1/2	208/3/60	PENN INLINER SX155BC (4) (5)	3

- ① SET BALANCE DAMPERS TO CFM LISTED.
- ② COORDINATE WITH ATC TO OPERATE FAN DURING OCCUPIED SCHEDULE.
- ③ PROVIDE BACKDRAFT DAMPER IN OUTLET OF EXHAUST FAN
- 4 OR EQUAL BY OTHER MANUFACTURER'S IN SPECIFICATION.
- ⑤ MAXIMUM 15 SONES

					PUI	MP SC	HED	ULE		· ·	12
SYMBOL	TYPE	GPM	FT HEAD	RPM	SUCTION SIZE	DISCHARGE SIZE ①		OTOR ELECTRICAL	SIZE	SERVICE	MANUFACTURER & MODEL #
CP 1	IN-LINE CIRCULATOR	31	15	1750	1.5	1.5	1/2	115/1/60	1-1/4 x 5-1/4	COIL CIRC. HOT WATER	BELL & GOSSETT SERIES 60 3
CP 2	IN-LINE CIRCULATOR	95	15	1750	2	2	3/4	115/1/60	2 x 5-1/4 4	COIL CIRC. CHILLED WATER	BELL & GOSSETT SERIES 60 3

- 1 PROVIDE REMOVABLE INSULATION KIT AROUND PUMP AND SUCTION.
- 2 ALL PUMPS SHALL BE SIZED ON THE FLAT PART OF THE CURVE. SEE DETAIL A2/ME502
- 3 SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- 4 SIZE FOR 30% PROPYLENE GLYCOL.

	COMPUTER ROOM UNIT SCHEDULE														
	CAP	ACITY			(FAI	NS)			EV	APORATOR	COIL ①	ELE	CTRIC	AL	MANUFACTURER
SYMBOL	TOTAL MBH	SENSIBLE MBH	CFM	ESP	HP	NO. FANS	FLA	OPD	AREA SQ. FT.	ROWS	FACE VEL (FPM)	VOLTS	Ø	HZ	MODEL # (2)(3)(4)(5)(6)(7)
CRU 1	13,300	11,300	600	0.3	.2	1	8.7	15	2.44	2	230	208	1	60	LIEBERT MMD12A

- (1) COND. ENTERING EVAPORATOR 80° DB, 63° WB.
- (2) PROVIDE SELF CONTAINED AIR COOLED UNIT. DUCT CONDENSER INTAKE AND DISCHARGE TO MECHANICAL ROOM.
- (3) PROVIDE WITH INTEGRAL SUPPLY AND RETURN GRILLE MOUNTED TO UNIT.
- 4 PROVIDE WITH HOT GAS REHEAT OPTION.
- 5 PROVIDE WITH THERMOSTAT AND NECESSARY CONTROLS FOR CENTRAL MONITORING. SEE NOTE 7.
- 6 PROVIDE WITH OPTIONAL CONDENSATE PUMP.
- 7) PROVIDE WITH NIC CARD WITH MOD BUS RTU INTERFACE. COORDINATE WITH CONTROLS CONTRACTOR.

-	RECTA	NGULA	R OR SQUARE D	OUC	T CONS	TRUCT	ION SCH	EDULE
					TRA	NSVERSE F	REINFORCING	G (1)
			MINIMUM		·	AT JO	INTS	
	DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAGE (ALL FOUR SIDES)	REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	MIN. H. IN.	ORIVE SLIP PLAIN PLAIN PLAIN PLAIN PLAIN PLAIN PLAIN PLAIN PLAIN SCIP RENDED GAGE	HEMMED S SLIP RECOM- MENDED GAGE	ALTER'NT BAR SLIP RECOM- MENDED GAGE	REIN- FORCED BAR SLIP RECOM- MENDED GAGE
	UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
I	13 - 18	24	NONE REQUIRED	1	24	24	24	24
	19 - 30	24	1"X1"X1/8" @ 60 IN	1	-	24	24	24
	31 - 36	22	1"X1"X1/8" @ 60 IN	1			22	22

TRANSVERSE REINFORCING SIZE IS DETERMINED BY
DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

_					
			SSURE ROU		
	DUCT		M 2" W.G. POSITIVE	MAXIMUN STATIC N	
	DIAMETER	SPIRAL	LONGITUDINAL	SPIRAL	LONGITUDINA
	IN INCHES	SEAM GAUGE	SEAM GAUGE	SEAM GAUGE	SEAM GAUGE
	3 thru 8	28	28	28	24
	9 thru 14	28	26	26	24
	15 thru 26	26	24	24	22
	27 thru 36	24	22	22	20
	37 thru 50	22	20	20	18
		1			ł

	DIFFUSER SCHEDULE													
SYMBOL	TYPE	MAX CFM	FACE SIZE	NCK SIZE	CEILING TYPE	BLOW	PATTERN	AIR DIST. A%	AIR DIST. B%	SCHEDULE NOTES				
D-1 CFM	CEILING	100	6x6	5"Ø	LAY-IN	4-way	<b>4 △ △ △ △ △ △</b>	25	25	1,2				
D-2 CFM	CEILING	200	9x9	8"Ø	LAY-IN	4-way	A A B B B	25	25	1,2				
D-3 CFM	CEILING	400	12x12	10"Ø	LAY-IN	4-way	<b>⊲</b> MA <b>⊗</b> B	25	25	1,2				
D-4 CFM	CEILING	100	6x6	5"Ø	HARD	4-way	<b>⊲</b> MA <b>⊗</b> B	25	25	2				
D-5 CFM	CEILING	200	9x9	8"Ø	HARD	4-way	<b>⊘</b> A <b>⊘</b> B	25	25	2				
D-6 CFM	CEILING	400	12x12	10"Ø	HARD	4-way	<b>⊲</b> A <b>⊗</b> B	25	25	2				
D-7 CFM	CEILING	650	15x15	12"Ø	HARD	4-way	<b>⊲</b> A B	25	25	2				

- PROVIDE LAY-IN CEILING BORDER/MODULE AS REQUIRED.
  COORDINATE WITH ARCHITECTURAL CEILING PLANS.
- ② MAXIMUM NC = 25 @ MAXIMUM CFM NOTED.
- ③ PRICE SMD OR EQUAL IN SPECIFICATIONS.

REGISTER, LOUVER & GRILLE SCHEDULE													
SYMBOL	TYPE	SERVICE	MAX CFM	NOMINAL SIZE	THROAT SIZE	CEILING TYPE	MAKE AND MODEL	SCHEDU NOTES					
R-1	CEILING	RETURN	185	8x8	8x8	LAY-IN	PRICE 535	1,3,4,5					
R-2	CEILING	RETURN	260	10x10	10x10	LAY-IN	PRICE 535	1,3,4,5					
R-3	CEILING	RETURN	375	12x12	12x12	LAY-IN	PRICE 535	1,3,4,5					
R-4	CEILING	RETURN	600	16x16	16x16	LAY-IN	PRICE 535	1,3,4,5					
R-5	CEILING	RETURN	1100	22x22	22x22	LAY-IN	PRICE 535	1,3,4,					
R-6	CEILIING	RETURN	185	8x8	8x8	HARD	PRICE 535	1,3,4,5					
R-7	CEILING	RETURN	260	10x10	10x10	HARD	PRICE 535	1,3,4,					
R-8	CEILING	RETURN	375	12x12	12x12	HARD	PRICE 535	1,3,4,					
R-9	CEILIING	RETURN	600	16x16	16x16	HARD	PRICE 535	1,3,4,					
R-10	CEILIING	RETURN	1100	22x22	22x22	HARD	PRICE 535	1,3,4,					
R-11	SIDEWALL	RETURN	365	16x6	16x6	NA	PRICE LBMR	1,3,4,					
R-12	SIDEWALL	RETURN	550	26x6	26x6	NA	PRICE LBMR	1,3,4,					
R-13	CEILING LINEAR SLOT	RETURN	1000	60"	16"	HARD	PRICE JS (TWO 1" SLOTS)	1,3,4,					
TG-1	CEILING	TRANSFER	375	12x12	12x12	вотн	PRICE 535	1,3,4,					
TG-2	CEILING	TRANSFER	750	18x18	18x18	LAY-IN	PRICE 535	1,3,4,5					
LD-1 CFM	CEILING LINEAR SLOT	SUPPLY	1000	60"	16"	HARD	PRICE JS (TWO 1" SLOTS)	1,3,4,					
S-1 CFM	SIDEWALL	SUPPLY	325	16x6	16x6	NA	PRICE LBMR	1,3,4,					
EG-1 CFM	CEILIING	EXHAUST	100	6X6	6X6	HARD	PRICE 535	1,3,4,					
EG-2 CFM	CEILIING	EXHAUST	185	8x8	8x8	HARD	PRICE 535	1,3,4,					
EG-3 CFM	CEILING	EXHAUST	450	14x14	14x14	HARD	PRICE 535	1,3,4,					
L-1	LOUVER	FRESH AIR	9500	108"x44"	NA	NA	RUSKIN ELF811S	2,3					

#### REGISTER. LOUVER AND DIFFUSER SCHEDULE NOTE S:

- ① MAXIMUM NC = 25 @ MAXIMUM CFM NOTED.
- ② PROVIDE WITH BIRD SCREENS, AND KYNAR FINISH WITH COLOR BY ARCHITECT..
- ③ SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
- 4 FINISH SHALL BE OFF-WHITE BAKED ENAMEL.
- ⑤ PROVIDE TRANSITION TO DUCT SIZE SHOWN ON PLANS.

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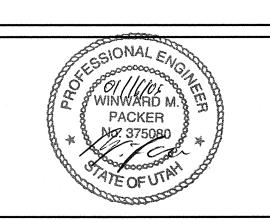
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OLD MAIN BUILDING SOUTHERN UTAH UNIVERSITY

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STATE OF UTAH

DFCM

4110 STATE OFFICE BUILDING SALT LAKE CITY, UTAH

BID DOCUMENT 1/16/06
CD 100% 7/21/04
DD Sumbittal 7/12/04

ARCHITECT PROJECT NO.: B04-012
DFCM PROJECT NO.: 03234730

MECHANICAL SCHEDULES

**ME601** 

0.44501	SERVES	INLET DIA.		COOLING					HEATING (2	20° DELTA T)				MAX RAD	MANUF.	SCEDULE
SYMBOL	SERVES	(INCHES)	MAX CFM	MIN CFM	MX APD (IN)	COIL EAT	COIL LAT	MAX CFM	COIL MBH	FLOW GPM	EWT	(FT) PD	ROWS	NC LEVEL	MODEL#	NOTES
VAV-101	CLASS B	14"	1800	600	0.5	65	105	1530	56.9	5.7	180	2.5	2	25	PRICE SDV	1,2
VAV-102	CLASS A	12"	1200	400	0.5	65	105	1020	7.9	3.8	180	2.5	2	25	PRICE SDV	1,2
VAV-103	STUDENT LOUNGE	12"	1480	495	0.5	65	105	1260	46.8	4.7	180	2.5	2	25	PRICE SDV	1,2
VAV-104	STUDENT PRODUCTION	10"	615	205	0.5	65	105	525	19.5	2.0	180	2.5	2	25	PRICE SDV	1,2
VAV-105	FIELD SERVICE DIR.	8"	425	145	0.5	65	105	365	13.4	1.4	180	2.5	2	25	PRICE SDV	1,2
VAV-106	FIELD SERVICE ADV.	8"	330	110	0.5	65	105	285	10.4	1.1	180	2.5	2	25	PRICE SDV	1,2
VAV-201	2ND FLOOR RESTROOMS	8"	425	145	0.5	65	105	360	13.4	1.5	180	2.5	2	25	PRICE SDV	1,2
VAV-202	SECRETARY 214	8"	525	175	0.5	65	105	450	16.6	1.7	180	2.5	2	25	PRICE SDV	1,2
VAV-203	DEAN'S OFFICE	8"	420	140	0.5	65	105	360	13.3	1.4	180	2.5	2	25	PRICE SDV	1,2
VAV-204	ASSOC. DEAN	8"	425	145	0.5	65	105	365	13.4	1.4	180	2.5	2	25	PRICE SDV	1,2
VAV-205	ADVISOR	8"	400	135	0.5	65	105	340	12.6	1.3	180	2.5	. 2	25	PRICE SDV	1,2
VAV-206	RECEPTION	12"	1430	480	0.5	65	105	1215	45.2	4.5	180	2.5	2	25	PRICE SDV	1,2
VAV-207	SECONDARY ED.	10"	625	210	0.5	65	105	530	19.8	2.0	180	2.5	2	25	PRICE SDV	1,2
VAV-208	SHARED OFFICE SUPP.	8"	500	170	0.5	65	105	425	15.8	1.6	180	2.5	2	25	PRICE SDV	1,2
VAV-209	CONF 207	8"	510	170	0.5	65	105	435	16.1	1.6	180	2.5	2	25	PRICE SDV	1,2
VAV-301	DIST LEARN "C"	10"	775	255	0.5	65	105	660	24.0	2.5	180	2.5	2	25	PRICE SDV	1,2
VAV-302	DIST LEARN "B"	8"	600	200	0.5	65	105	510	19.0	1.9	180	2.5	2	25	PRICE SDV	1,2
VAV-303	DIST LEARN "A"	10"	740	250	0.5	65	105	630	24.0	2.5	180	2.5	2	25	PRICE SDV	1,2
VAV-304	GRAD. ADVISOR	8"	430	145	0.5	65	105	370	13.6	1.4	180	2.5	2	25	PRICE SDV	1,2
VAV-305	GRAD. EDU CHAIR	12"	1050	350	0.5	65	105	890	33.2	3.5	180	2.5	2	25	PRICE SDV	1,2
VAV-306	STUDENT WORK STAT.	8"	540	180	0.5	65	105	445	16.4	1.7	180	2.5	2	25	PRICE SDV	1,2
VAV-307	DEAN'S CONFERENCE	12"	1100	400	0.5	65	105	930	35	3.5	180	2.5	2	25	PRICE SDV	1,2
VAV-308	RECEPTION	14"	1300	435	0.5	65	105	1105	41.1	4.1	180	2.5	2	25	PRICE SDV	1,2
VAV-309	STAIRWAY	12"	1000	335	0.5	65	105	850	31.6	3.2	180	2.5	2	25	PRICE SDV	1,2

<sup>1</sup> SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.

ELECTRIC BASEBOARD HEATER SCHEDULE POWER ACCESSORIES MANUF. & MODEL ## LENGTH IN INCHES WATTS QMARK QMKC-2512-6W 120/1/60 THERMOSTAT 1700 30" 500 4.2

COOPER ROBERTS SIMONSEN ARCHITECTURE

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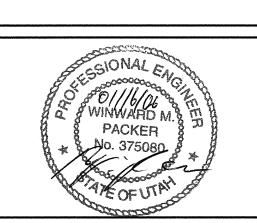








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BID DOCUMENT 1/16/06
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ARCHITECT PROJECT NO.: B04-012 DFCM PROJECT NO.: 03234730

MECHANICAL

**ME602** 

SCHEDULES

<sup>2</sup> MAXIMUM RADIATED NC WITH 1.5" W.G. PRESSURE DROP ACROSS UNIT.

<sup>3</sup> PROVIDE WITH 36" SOUND ATTENUATOR ON VAV BOX DISCHARGE.

#### INDEX OF ELECTRICAL DRAWINGS

EG101 SYMBOLS, SCHEDULES & NOTES ED101 ELECTRICAL DEMOLITION PLANS ES101 ELECTRICAL SITE PLAN ES102 ELECTRICAL SITE PLAN EL100 LIGHTING PLAN-BASEMENT LEVEL

EL101 LIGHTING PLAN-MAIN LEVEL EL102 LIGHTING PLAN-SECOND LEVEL EL103 LIGHTING PLAN-THIRD LEVEL EP100 POWER PLAN-BASEMENT LEVEL EP101 POWER PLAN-MAIN LEVEL

EP103 POWER PLAN-THIRD LEVEL EP104 LIGHTING, POWER & SYSTEMS PLAN ATTIC

EX101 ONE LINE DIAGRAM EX102 PANEL BOARD SCHEDULES

EP102 POWER PLAN-SECOND LEVEL

EX201 ELECTRICAL DETAILS

EX202 ELECTRICAL DETAILS EY101 SYSTEMS PLAN MAIN, SECOND & THIRD LEVEL

EY102 DISTANCE LEARNING ENLARGED PLAN

#### EQUIPMENT SCHEDULE WIRES OCPD REF. NOTES **FUNCTION** REMARKS LOAD VOLT | \$ CP-1 CIRCULATION PUMP 3/4" 1 2 12 CB 20 .5 HP 120 1 9.80 3/4" 1 2 12 CB 20 4A .75 HP 120 1 13.80 3/4" 1 2 12 CB 25 4A 8.7 HP 208 1 12.8 3/4" 1 2 12 CB 20 2A 1.5 HP 208 3 6.60 3/4" 1 3 12 CB 15 7A 10 HP 208 3 30.80 3/4" 1 3 8 CB 60 9A 4.4 FLA 120 1 4.40 3/4" 1 2 12 CB 20 4A 1/3 HP 120V 1 1" 1 12 9.80 CP-2 CIRCULATION PUMP CRU-1 COMPUTER ROOM UNIT EF-1 EXHAUST FAN RF-1 RETURN FAN RP-1 RECIRCULATION PUMP SP-1 SUMP PUMP SF-1 SUPPLY FAN WH-1 WATER HEATER

1. NON-FUSED DISCONNECT SWITCH 2. FUSED DISCONNECT SWITCH

BREAKER IN ENCLOSURE

1. MANUAL STARTER W/THERMAL OVERLOAD

5. MAGNETIC STARTER MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION

MAGNETIC STARTER/FUSED DISCONNECT COMBINATION

. MAGNETIC STARTER/BREAKER COMBINATION 9. VARIABLE FREQUENCY DRIVE

10. REDUCED VOLTAGE STARTER 11. DIRECT CONNECTION

12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC. 13. TWO-SPEED STARTER, COORDINATE W/MOTOR TYPE A. FURNISHED, INSTALLED, AND CONNECTED UNDER DIVISION 16 B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTION UNDER DIVISION 16.

C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 16. D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION.

OVER CURRENT PROTECTIVE DEVICES

CB = CIRCUIT BREAKER - THERMAL MAGNETIC FN = FUSE - NON INDUCTIVE LOAD

FI = FUSE - INDUCTIVE LOAD MO = MAGNETIC ONLY CIRCUIT BREAKER

FIXTURE SCHEDULE

דיייי	DECORIDATION	CATALOG AUDIDED	LVOLTO	1 41400
TYPE	DESCRIPTION	CATALOG NUMBER	VOLTS	LAMPS
A1	RECESSED 2 X 4 INDIRECT, GRID MOUNT, DUAL SWITCHING WITH CENTER PERFORATED BASKET 3 LAMP T8 ELECTRONIC	LITHONIA 2AV-G-3-32-MDR-120-GLR	120	(3) F032/835/XPS/EC0
A2	RECESSED 2 X 2 INDIRECT, GRID MOUNT WITH CENTER PERFORATED BASKET 2 LAMP 55 WATT BIAX	LITHONIA 2AV-G-2-CF55-MDR-120-GLR	120	(2) FT55W/2G11-35K
A3	RECESSED 2X2 INDIRECT FLANGE MOUNT WITH PERFORATED BASKET WITH LOUVER 2 LAMP 55 WATT BIAX	LITHONIA 2AV-G-2-CF55-MDR-120-GLR-DGA	120	(2) FT55W/2G11-35K
A4	RECESSED 2 X 4 INDIRECT, FLANGE MOUNT WITH CENTER PERFORATED BASKET 3 LAMP T8	LITHONIA 2AV-G-3-32-MDR-120-GLR-1/3-DGA	120	(3) F032/835/XPS/EC0
B1	RECESSED 2 X 4 LENSED TROFFER, GRID MOUNT A1.125 LENS 3 LAMP T8	LITHONIA 2SP8-F-3-32-120-1/3-GLR-A12125	120	(3) F032/835/XPS/EC0
B2	RECESSED 2 X 4 LENSED TROFFER, FLANGE MOUNT A1.125 LENS 3 LAMP T8	LITHONIA 2SP8-F-3-32-120-1/3-GLR-A12125	120	(3) F032/835/XPS/EC0
DF1	8" COMPACT FLUORESCENT DOWNLIGHT VERTICAL LAMP, CLEAR DIFFUSE FINISH 1 LAMP 42 TRT	LITHONIA AFV-42TRT-8-AR-LD-120	120	(1) CF42DT/E/IN/835
DF2	SAME AS DF1 EXCEPT ADD DIMMING BALLAST	LITHONIA AFV-42TRT-8-AR-LD-120	120	(1) CF32DT/E/IN/835
P1	PENDANT BOWL WITH PAINTED ROLLED TRIM RING 32" DIAMETER, SINGLE STEM SEE PLANS FOR NON-STANDARD STEM LENGTHS AND OVERALL HEIGHT (VARIES) WHITE OPAL BOWL 6 LAMP 40 WATT BIAX	SPI RIP1004-F-4F40/2F40-120-PT-F-SAV OAH XX STANDARD PAINT FINISH BY ARCHITECT	120	(6) FT40W/2G11-35K
P2	SURFACE MOUNT FIXTURE TO MATCH P1 24" DIAMETER 2 LAMP 39 WATT BIAX	SPI RIC 1002-2F39-120-PT-F TRIM RING, STEM AND CANOPY IS STANDARD PAINT FINISH BY ARCHITECT	120	(9) FT39W/2G11-35K
P3	PENDANT BOWL WITH PAINTED ROLLED TRIM RING 42" DIAMETER, SINGLE STEM SEE PLANS FOR NON-STANDARD STEM LENGTHS AND OVERALL HEIGHT WHITE OPAL BOWL 9 LAMP 40 WATT BIAX	SPI RIP1006-6F40/3F40-120-PT-F-SAV-OAH XX TRIM RING, STEM AND CANOPY IS STANDARD PAINT FINISH BY ARCHITECT	120	(9) FT40W/2G11-35K
R	JELLY JAR W/ GUARD, FLUORESCENT LAMP, WALL MOUNTED	RIG-A-LITE: CVP42F27GGW	120	(1) CF42DT/E/IN/835
S	FLOURESCENT STRIP LIGHT 2-LAMP, WIRE GUARD	LITHONIA: C-232-120-GLR-CSMR-WG-GLR	120	(3) F032/835/XPS/EC0
٧	VIDEO CONFERENCING FIXTURE	ELP 255BXVT-TB	120	(2) FT55W/2G11-35K
W	6" DOWNLIGHT, WALL WASH VERTICAL LAMP, CLEAR DIFFUSE FINISH 1 LAMP 42 WATT TRT	LITHONIA: AFW-1/42 TRT-ADJ	120	(1) CF42DT/E/IN/835
X1	SINGLE FACE EXIT LIGHT, LED, UNIVERSAL MOUNT SEE PLANS FOR MOUNTING AND ARROWS	LITHONIA: LES1G-120/277	120	LED INCLUDED
X2	DOUBLE FACE EXIT LIGHT,  LED, UNIVERSAL MOUNT  SEE PLANS FOR MOUNTING AND ARROWS	LITHONIA: LES2G-120/277	120	LED INCLUDED

#### ABBREVIATION SCHEDULE NOTE: NOT ALL ABBREVIATIONS WILL NECESSARILY BE USED. ABOVE FINISHED FLOOR WALL MOUNT AT CORNER OF WALL AND CEILING CUSTOM PAINTED COLOR AS SELECTED BY THE ARCHITECT

CUSTOM FINISH AS SELECTED BY THE ARCHITECT

STANDARD FINISH AS SELECTED BY THE ARCHITECT

MODIFY STANDARD LIGHT FIXTURE AS INDICATED

LIGHT FIXTURE

REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPANCIES OF LOCATIONS AND QUANTITIES TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO BIDDING. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS AND LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING. REFER TO THE SPECIFICATIONS FOR OTHER LIGHT, FIXTURE, FUSING, BALLAST, AND LAMP STANDARD PAINTED COLOR AS SELECTED BY THE ARCHITEC REQUIREMENTS AND ACCEPTABLE MANUFACTURERS.

LIGHT FIXTURE GENERAL NOTES

REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOUVER REQUIREMENTS AS CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL LIGHT FIXTURES AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF

THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO RELEASE. BIDDING REQUIREMENTS

. BID ONLY PRODUCTS THAT ARE SPECIFIED OR APPROVED BY ADDENDUM

2. PACKAGING OF LIGHT FIXTURES WITH OTHER SYSTEMS IS NOT ALLOWED. 3. WHEN ONLY ONE PRODUCT IS APPROVED FOR BIDDING, THE PRICE FOR THAT ITEM SHALL BE BROKEN OUT SEPARATELY WHEN SUBMITTING PRICING TO VARIOUS

DISTRIBUTORS AND/OR CONTRACTORS. -. WHEN A CONTRADICTION EXISTS BETWEEN A SPECIFIC MODEL NUMBER AND THE DESCRIPTION, THE DESCRIPTION SHALL GOVERN.

PRIOR APPROVAL REQUIREMENTS

PRIOR APPROVAL IS REQUIRED BEFORE BIDDING THIS PROJECT.

PRIOR APPROVALS SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER'S OFFICE AT LEAST (8) EIGHT WORKING DAYS BEFORE THE BID. PRIOR APPROVALS RECEIVED AFTER THIS TIME PERIOD SHALL BE REJECTED.

PRIOR APPROVALS SHALL BE SIGNED BY A PRINCIPAL OF THE SUBMITTING ORGANIZATION STATING THAT THEY HAVE PREPARED AND/OR REVIEWED THE SUBMITTAL AND THAT THE PRODUCTS PROPOSED ARE EQUIVALENT TO THOSE SPECIFIED. ANY EXCEPTIONS SHALL BE SO NOTED.

ITEMS THAT ARE SUBMITTED AND HAVE BEEN APPROVED WILL BE LISTED IN THE ADDENDUM(S). VERBAL APPROVAL WILL NOT BE GIVEN ON ANY ITEM. 5. IT IS <u>not</u> the responsibility of the electrical engineer to notify the submitting party of errors in the submittal. Notification of errors by the

ELECTRICAL ENGINEER PRIOR TO ISSUANCE OF THE ADDENDUM(S) MAY NOT BE GIVEN.

PRIOR APPROVALS SHALL CONSIST OF TWO SETS OF CUT SHEETS DESCRIBING THE PRODUCTS BEING SUBMITTED AS EQUIVALENTS. FAXES ARE <u>NOT</u> ACCEPTABLE. ALL SPECIFICATION INFORMATION SHALL BE CLEARLY MARKED, WITH NON-APPLICABLE INFORMATION CROSSED OUT. COMPLETE PHOTOMETRIC DATA SHALL BE PROVIDED. PRODUCTS WITHOUT PHOTOMETRIC DATA WILL NOT BE APPROVED.

SUPPLY POINT-BY-POINTS AS REQUIRED BY THE ELECTRICAL ENGINEER AND/OR LIGHTING DESIGNER.

. SAMPLE FIXTURES MUST BE SUPPLIED WITH A CORD, PLUG AND 120V BALLAST.

#### LIGHTING SHOP DRAWING REQUIREMENTS

REFER TO SPECIFICATIONS 16001 AND 16510.

MUST INCLUDE BALLAST AND LAMP CUT SHEETS. 3. LINEAR LIGHTING MUST INCLUDE DETAILED DRAWINGS WITH SUPPORT DETAILS, STEM LOCATIONS AND HAVE ALL LENGTHS IDENTIFIED WITH STEM LOCATIONS.

4. COLOR SAMPLES MUST BE INCLUDED IN FIRST SUBMITTAL

5. CUT SHEETS MUST BE STAMPED BY THE FACTORY REPRESENTATIVE'S COMPANY NAME.

5. VALUE ENGINEERING CONDUCTED WITHOUT THE DESIGN TEAM IE; ARCHITECT, OWNER, ENGINEER & LIGHTING CONSULTANT/DESIGNER WILL NOT BE ALLOWED, REVIEWED OR

PROVIDE A LIST OF SPARE PARTS, EQUIPMENT & LAMPS.

#### **ABBREVATIONS**

A.F.F. ABOVE FINISH FLOOR AMPS INTERRUPTING CAPACITY AMPS METER AMPERE ANN ANNUNCIATOR AUTOMATIC TEMPERATURE CONTROL ATC ATS AUTOMATIC TRANSFER SWITCH AUX AUXILIARY AMERICAN WIRE GAUGE BARE COPPER BELOW FINISH GRADE CATB COMMUNITY ANTENNA TELEVISION CLG CNTR CONTRACTOR CONDUIT ONLY COMPUTER TERMINAL (CATHODE RAY TUBE) CURRENT TRANSFORMER COMPLETE WITH C/W EMERGENCY GENERATOR ELECTRICAL METALIC TUBING EXPLOSION PROOF FACP FIREALARM CONTROL PANEL GROUND GALVANIZED RIGID CONDUIT GRC HORSE POWER INTERMEDIATE METALIC CONDUIT ISOLATED GROUND JUNCTION BOX J-BOX KILOVOLT KVA KILOVOLT AMPERES KVAR **KILOVARS** KILOWAT KW LOCKED ROTOR AMPS MANUFACTURER MNF MATV MASTER ANTENNA TELEVISION MAX MAXIMUM MAIN BUS MOTOR CONTROL CENTER MCM 1000 CIRCULAR MILLS MANHOLF MICROPHONE MIN MINIMUM MOUNTING MTR MOTOR NOT APPLICABLE N/A NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFAC. ASSOC. NFC NATIONAL FIRE CODE NATIONAL FIRE PROTECTION ASSOC. NFPA N.I.C. NOT IN CONTRACT NOT TO SCALE NTS OUTSIDE SCREW & YOKE (FIRE SPRINKLER RISER) 0S & Y PUSHBUTTON POWER FACTOR PHASE FAILURE RELAY PFR POTENTIAL TRANSFORMER PVC POLYVINYL CHLORIDE CONDUIT RECEPTACLE REQ REQUIREMENT RATED LOAD AMPS SERVICE ENTRANCE SPECIFICATIONS SPFAKER SELECTOR SWITCH **SWITCHBOARD** SWBD SWITCHGEAR TELEPHONE TERMINAL BOARD TELEVISION UTAH POWER VOLT (KV-KILOVOLT VOLT-AMPS/REACTIVE VOLT METER WATTS WATTHOUR METER WEATHERPROOF XFER TRANSFORMER SINGLE-PHASE TWO-POLE THREE-POLE

#### GENERAL NOTES

- VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
- CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER DIVISION 15 WITH APPROVED
- SEE SECTION 16510 OF THE SPECIFICATION REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
- SEE APPLICABLE SHOP DRAWINGS FOR ROUGH-IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACKSPLASH EXCEPT
- THOSE SERVING UNDER COUNTER EQUIPMENT. SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.

MECHANICAL SHOP DRAWINGS BEFORE BEGINNING ROUGH-IN.

FOUR-POLE

- 6. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU
- ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY

ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER

9. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.

#### DEMOLITION NOTES

- COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 16.
- RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
- CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS
- LEAVE ALL EXISTING EQUIPMENT, IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO
- WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.

EXISTING RACEWAYS MAY BE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE

- . REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO
- REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF PER THE OWNER'S
- 8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
- DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.

#### ELECTRICAL SYMBOL SCHEDULE

- SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
  HEIGHT MEASURED TO TOP LINE OF THE BOX FROM THE FINISHED FLOOR.
  REFER TO DRAWINGS FOR DIRECTIONAL ARROWS. SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
- HEIGHT TO BE THE LOWER OF EITHER 80" A.F.F. OR 6" BELOW CEILING.
  PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
  DOUBLE ARROWS DENOTE A DOUBLE FACE UNIT.
- COORDINATE WITH SHOP DRAWINGS.

CONDUIT RUN CONCEALED IN WALL OR CEILING

— — — CONDUIT RUN CONCEALED IN FLOOR OR GROUND

-○ CONDUIT UP

CONDUIT DOWN

CABLE TRAY

CONDUIT STUB LOCATION

CEILING LIGHT FIXTURE

RECESSED DOWNLIGHT FIXTURE

FLUORESCENT LIGHT FIXTURE

CEILING MOUNTED EXIT LIGHT

WALL MOUNTED EXIT LIGHT

SINGLE POLE SWITCH

SINGLE POLE SWITCH

THREE-WAY SWITCH

FOUR-WAY SWITCH

KEY OPERATED SWITCH

OCCUPANCY SENSOR

OCCUPANCY SENSOR

DUPLEX RECEPTACLE

DUPLEX RECEPTACLE

₩P WEATHERPROOF RECEPTACLE

₩ | ELECTRIC WATER COOLER RECEPTACLE

FOURPLEX RECEPTACLE

ISOLATED GROUND RECEPTACLE

FLOOR OUTLET WITH 20A DEVICE

DATA OUTLET - 6 PORTS (2-GANG)

TELEPHONE OUTLET - 1 VOICE, 1 DATA PORT

DATA OUTLET - 2 DATA PORTS

DATA OUTLET - 4 DATA PORTS

JUNCTION BOX ('F' IN FLOOR)

NON-FUSED DISCONNECT SWITCH

MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT

MAGNETIC STARTER / DISCONNECT COMBINATION

FIRE ALARM SIGNAL HORN/STROBE PROJECTORS

FUSED DISCONNECT SWITCH

VARIABLE FREQUENCY DRIVE

MAIN DISTRIBUTION PANEL

TELEPHONE TERMINAL BOARD

FIRE ALARM MANUAL STATION

SMOKE DETECTOR

HEAT DETECTOR

DOOR HOLDER

TAMPER SWITCH

FIRE ALARM RELAY

FIRE ALARM STROBE

WATER FLOOD INDICATOR

FIRE ALARM CONTROL MODULE

FIRE ALARM MONITOR MODULE

SECURITY SYSTEM DOOR SWITCH

SECURITY MOTION DETECTOR

SOUND SYSTEM SPEAKER

MICROPHONE CEILING OUTLET

ARCHITECTURAL ROOM NUMBER

LIGHT FIXTURE (LETTER DESIGNATES TYPE)

GENERATOR ANNUNCIATOR

EQUIPMENT NUMBER

VOLUME CONTROL

MICROPHONE FLOOR OUTLET

SOUND EQUIPMENT CABINET

MICROPHONE OUTLET

DUCT SMOKE DETECTOR

FIRE/SMOKE DAMPER

FIRE ALARM SIGNAL HORN/STROBE

FIRE ALARM SIGNAL SPEAKER/STROBE

PHOTO-ELECTRIC CONTROL

TELEPHONE OUTLET

MOTOR OUTLET

PUSHBUTTON

MAGNETIC STARTER

PANEL BOARD

BO

MULTIPLE SERVICE FLOOR BOX

SPECIAL PURPOSE OUTLET

SWITCH WITH PILOT LIGHT

VARIABLE INTENSITY SWITCH

MOMENTARY CONTACT SWITCH, CENTER POSITION OFF

GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE

FOURPLEX RECEPTACLE EMERGENCY POWER (RED)

DUPLEX RECEPTACLE EMERGENCY POWER (RED)

FLUORESCENT EGRESS LIGHT FIXTURE

◆■ AREA LIGHT POLE AND FIXTURE

WALL LIGHT FIXTURE

SYMBOL

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--- PLUGMOLD

	BSCRIPT DENOTES NEMA CONFIGURATION. IGHT MEASURED TO BOTTOM OF THE BOX FROM FINISHED	FLOOR.			ARCHITECTURE
STAN	IDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON	PLANS			
MBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES	E	
	ONE CIRCUIT, TWO WIRE HOME RUN TO PANEL				crsa
	2 CIRCUIT, 3 WIRE, COMMON NEUTRAL HOME RUN				
(m-(m-)	3 CIRCUIT, 4 WIRE, COMMON NEUTRAL HOME RUN				700 NORTH 200 WEST

AS NOTED

CEILING

CEILING

AS NOTED

AS NOTED UNSWITCHED

CONCRETE SEE DETAIL

CEILING 1.3.8.

AS NOTED 1.3.8.

+4'-0" 4. 2.

+4'-0"

+4'-0"

+4'-0"

+4'-0"

+4'-0"

+4"-0"

+4'-0"

CEILING

+4'-0"

+16"

+24"

+16"

+16" 11

+16"

FLOOR

+16"

+16"

AS NOTED

+5'-0"

+4'-0"

+5'-0"

+5'-0"

+4'-0"

+5'-0"

+6'-6"

+5'-0"

+7'-6"

+7'-6"

+7'-6"

+4'-0"

+6'-8"

+6'-8"

AS NOTED

+4'-0"

CEILING

MTD. IN DUCT

CIRCUIT TO 120V

AS NOTED TORK 2000A

+16" 9. 11.

+16" 9. 11.

SEE DETAIL

+16" OR 10. WITH CAP. 11.

AS NOTED

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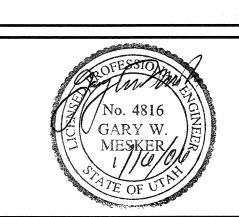
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# STATE OF UTAH

4110 STATE OFFICE BUILDING

SALT LAKE CITY, UTAH

JAN 2 3 2006

MOUNT AS PER. MAN BID DOCUMENT 1/16/06 D Sumbittal 7/12/04 ARCHITECT PROJECT NO.: B04-012 DFCM PROJECT NO.: 03234730

> SYMBOLS, **SCHEDULES & NOTES**

**EG101** 



COOPER ROBERTS SIMONSEN ARCHITECTURE

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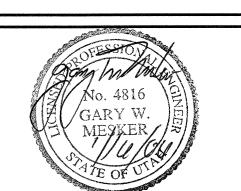
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DD Sumbittal 7/12/04

ARCHITECT PROJECT NO.: B04-012 DFCM PROJECT NO.: 03234730

**ELECTRICAL** 

DEMOLITION PLANS

**ED101** 

# FUTURE 'BLUE LIGHT' EMERGENCY PHONE (1) EXISTING HIGH VOLTAGE PULLBOX TO REMAIN — TO PANEL 'E' (12) EXISTING 300KVA PAD MOUNTED TRANSFORMER PROVIDE RIGID CONDUITS FOR 10 FEET TO MDP (SEE SHEET EP100) Intercept Existing conduits -— CORE DRILL AND SEAL FOUNDATION WALL AS REQUIRED EXISTING SECONDARY CONDUITS, 2-3 1/2" TO EXISTING GENERATOR ON SOUTH SIDE OF BRAITHWAITE BLDG. FUTURE 'BLUE LIGHT' EMERGENCY PHONE AND PEDESTAL FUTURE NEW 'BLUE LIGHT' EMERGENCY PHONE AND PEDESTAL (1) 1 1/4" EXISTING (2) (3) \_\_existing utility \_ Tunnel CONDUITS STUB INTO UTILITY TUNNEL —

#### OSHEET KEYNOTES

- REMOVE EXISTING SECONDARY CONDUCTORS, ABANDON CONDUIT.
- EXISTING GENERATOR IS APPROXIMATELY 340 FEET FROM CONDUIT STUBS IN UTILITY TUNNEL.
- PROVIDE (8) #14 CONTROL WIRING IN THE 1"C. FROM ATS TO EXISTING GENERATOR AND (4) #1 AND (4) #6 GND IN THE 1 1/4"C. FROM ATS TO THE EXISTING GENERATOR.
- 4 DISCONNECT POWER FROM EXISTING LANDSCAPE SPRINKLER CLOCK.
- PROVIDE POWER CIRCUIT AND CONNECTION TO NEW LANDSCAPE SPRINKLER CLOCK.
  COORDINATE EXACT LOCATION FOR CONNECTION REQUIREMENTS WITH LANDSCAPE CONTRACTOR.
- TO BE INSTALLED IN TEACHER ED BUILDING PROJECT. COORDINATE EXACT LOCATION WITH CAMPUS FACILITIES DEPARTMENT. CONCRETE BASE AND ANCHORS TO MATCH EXISTING CAMPUS PHONES.
- 7 NOT USED.
- 8 STUB CONDUITS INTO EXISTING UTILITY TUNNEL.
- 9 FOR FUTURE 'BLUE LIGHT' EMERGENCY PHONE.

  10 FOR FUTURE FLAGPOLE LIGHTING.
- EMPTY 1"C. AND PULL STRING TO ELEC/COMM ROOM 102 TERMINAL BOARD.
- (12) EMPTY 1"C. AND PULL STRING TO PANEL 'E'.
- STUB CONDUITS INTO PLANTING AREA, CAP AND MARK LOCATION.

  (2) EMPTY 3/4" CONDUITS AND PULL STRINGS TO PANEL 'A'.
- EXISTING (1) 200 PAIR VOICE TO CONFERENCE CENTER, 600 PAIR TO AUDITORIUM, (1) 900 PAIR VOICE FROM ADMINISTRATION, (3) FIBER OPTIC TO ADMINISTRATION AND ELC IN (6) 4" EXISTING CONDUITS.
- (16) CORE DRILL THROUGH WALL.
- ELEVATION CHANGE IN CONDUITS FOR THE ATS. CONDUITS ENTER ABOVE FLOOR LEVEL AND TRANSITION TO BELOW FLOOR SLAB.

COOPER ROBERTS SIMONSEN

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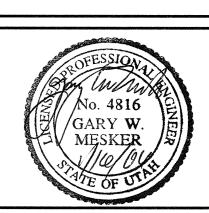
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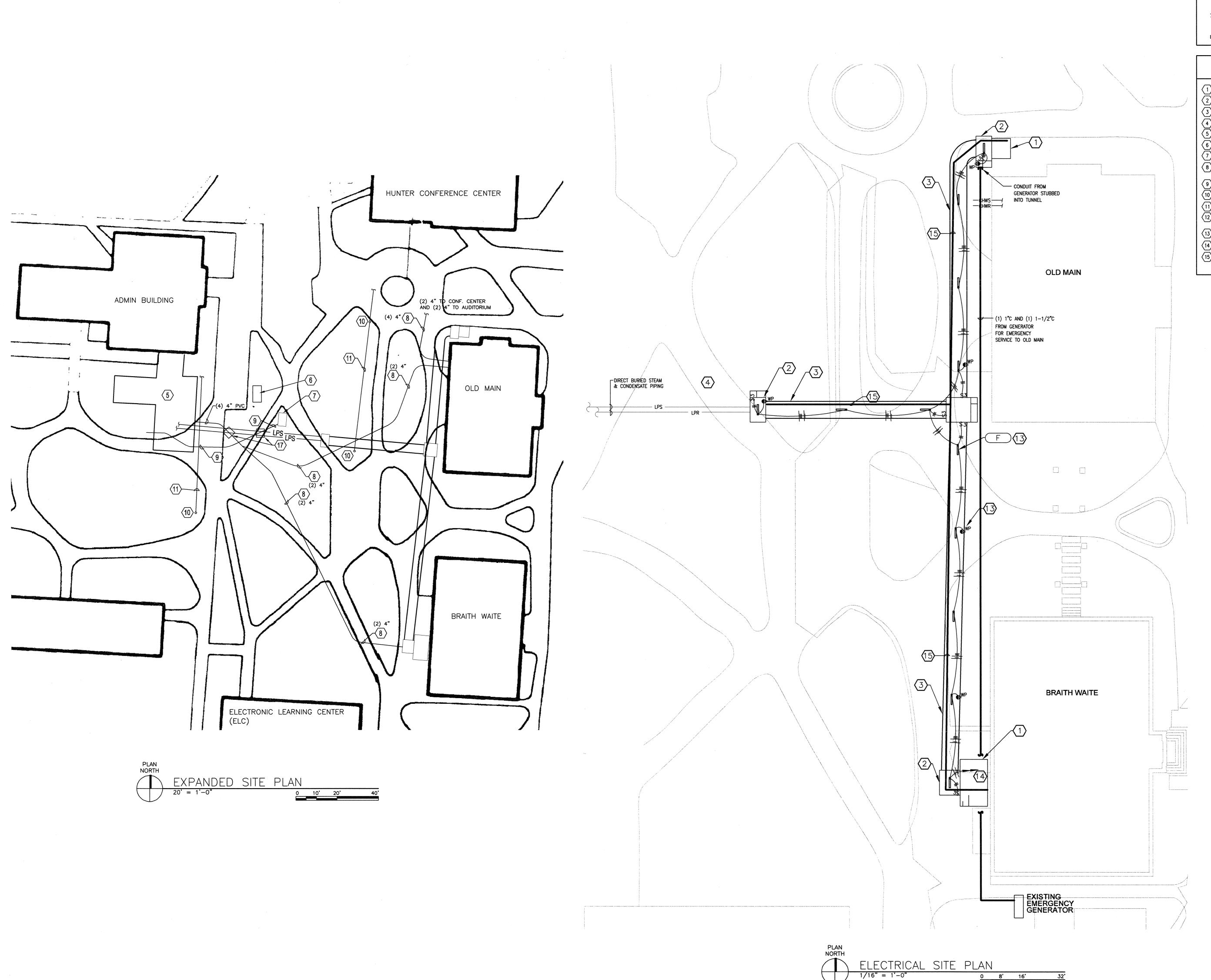
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BID DOCUMENT 1/16/06
CD 100% 7/21/04
DD Sumbittal 7/12/04

ARCHITECT PROJECT NO.: B04-012
DFCM PROJECT NO.: 03234730

ELECTRICAL SITE PLAN

**ES101** 



#### GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL EXISTING UTILITIES AND REPAIR ANYTHING DAMAGED DURING CONSTRUCTION.
- 2. SCHEDULING AND COORDINATING IS CRITICAL. THE TUNNEL WORK SHALL BE SCHEDULED TO BEGIN AS SOON AS POSSIBLE AFTER MAY COMMENCEMENT CEREMONIES. CONTRACTOR SHALL
- COORDINATE START UP OF EXCAVATION WITH OWNER'S REPRESENTATIVE.
- 3. WHEELCHAIR ACCESS TO THE OLD MAIN BUILDING MUST BE MAINTAINED AT ALL TIMES DURING
- 4. CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO TREES AS MUCH AS POSSIBLE.
- CONTRACTOR SHALL FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING DUCT BANKS, BURIED CONDUITS, ETC.
- 6. COMMUNICATIONS CONDUITS SHALL BE PROTECTED AT ALL TIMES TO AVOID DAMAGE TO CABLES. CABLES CONTAIN STATE—WIDE EDNET FIBER OPTIC, AND CAMPUS—WIDE TELEPHONE AND FIRE ALARM WHICH CANNOT BE INTERRUPTED. DAMAGE OR INTERRUPTION BY ANY CONTRACTOR WILL RESULT IN DIRE CONSEQUENCES.
- COORDINATE WITH GENERAL CONTRACTOR FOR ATTACHMENT OF CONDUIT STRAPS, LIGHT SUPPORTS, CABLE TRAY SUPPORTS, ETC. TO PROVIDE WATER TIGHT SEAL AT ANY PENETRATIONS OF CORRUGATED METAL TUNNEL.
- 8. ALL PROJECT DEMOLITION NOTES SHALL APPLY TO WORK ON THIS PLAN.

#### SHEET KEYNOTES

- 1 EXISTING CONCRETE VAULT.
- $\langle$  2  $\rangle$  EXISTING CONCRETE VAULT.
- $\langle 3 \rangle$  EXISTING 6'-6" CMP (CORRUGATED METAL PIPE) TUNNEL.
- 4 EXISTING DIRECT BURIED STEAM AND CONDENSATE PIPING TO EXISTING MECHANICAL ROOM.
- (5) EXISTING UNDERGROUND MECHANICAL ROOM. 6 EXISTING ELECTRICAL TRANSFORMER.
- (7) EXISTING HIGH VOLTAGE AND COMMUNICATION BOXES.
- 8 EXISTING DIRECT BURIED COMMUNICATIONS CONDUITS (TWO OR FOUR 4" PVC) WITH CAMPUS COMMUNICATIONS CABLES (TELEPHONE, DATA, FIRE ALARM, BUILDING MANAGEMENT, ETC.)
- (9) EXISTING CONCRETE ENCASED DUCT BANK WITH HIGH VOLTAGE AND COMMUNICATIONS CABLES.
- (10) EXISTING SITE LIGHTING.
- (11) EXISTING BURIED 1" CONDUIT WITH SITE LIGHTING CIRCUITS.
- EXISTING 10 FT X 10 FT X 1/2 INCH THICK COPPER PLATE BETWEEN STEAM PIPING AND CONDUITS FOR HEAT DISSIPATION.
- (13) EXISTING LIGHT FIXTURES AND WP DUPLEX GFI RECEPTACLES.
- (14) (2) EXISTING CIRCUITS (#10 WIRE) TO PANEL 'M' IN BRAITH WAITE MECHANICAL ROOM.
- EXISTING 12"W X 4"DEEP GALVANIZED STEEL CABLE TRAY, CLASS 12B, 9" RUNG SPACING.
  SUPPORTED EVERY 10 FEET WITH WALL KNEE BRACKETS CUSTOMIZED FOR CIRCULAR TUNNEL

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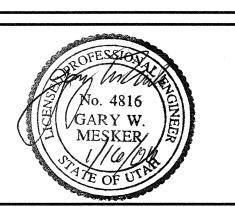


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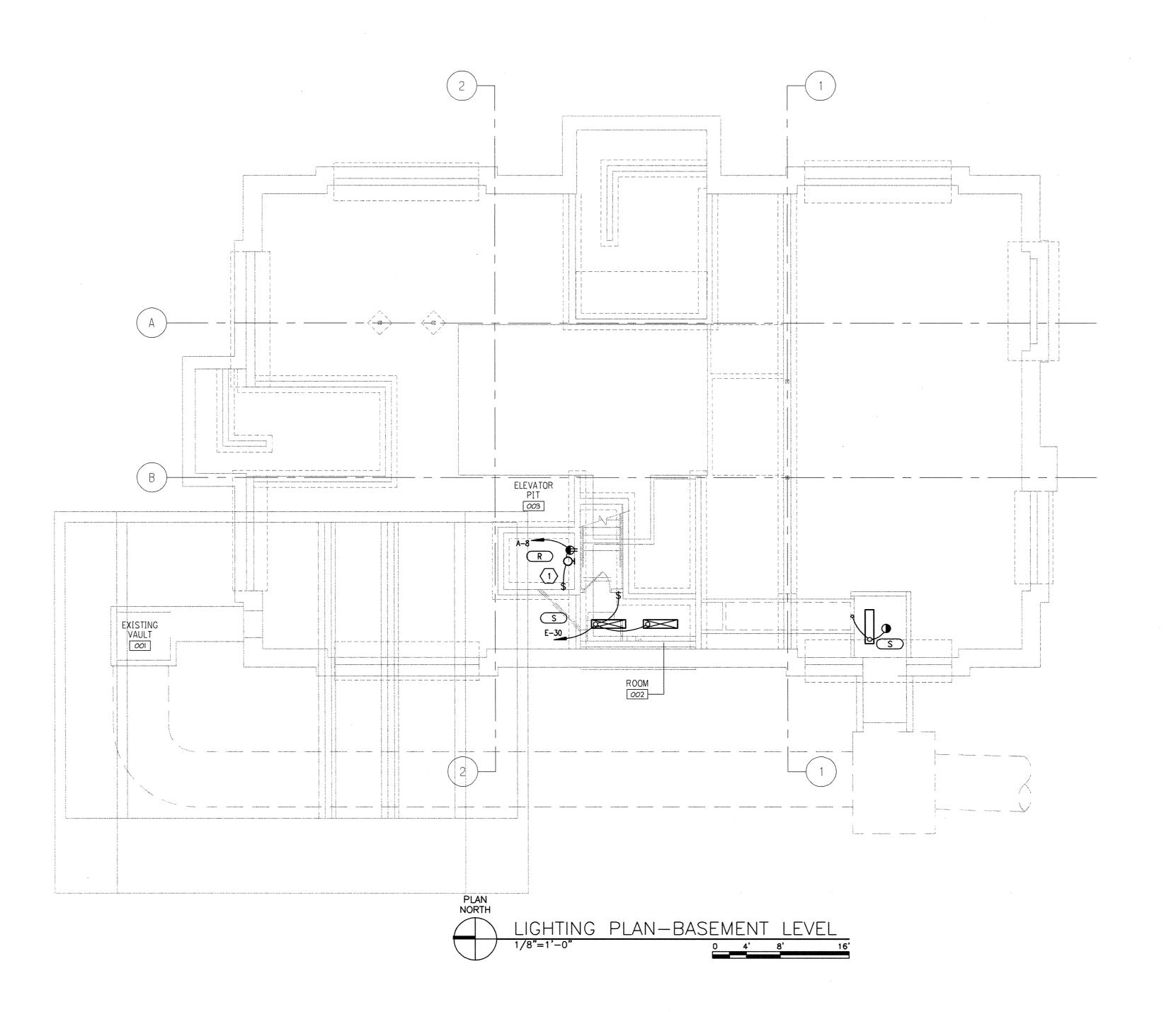
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> ELECTRICAL SITE PLAN

**ES102** 



#### GENERAL NOTES

1. REFER TO SHEET AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN ON THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507, AND AE508.

#### SHEET KEYNOTES

LOCATE SWITCH NEXT TO PIT LADDER. COORDINATE WITH ELEVATOR INSTALLER AND ELEVATOR SHOP DRAWINGS BEFORE ROUGH IN. 2 EXTEND TO CIRCUIT A-5 ON MAIN LEVEL.

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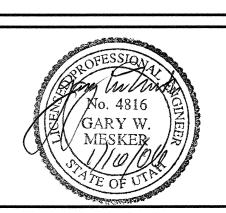


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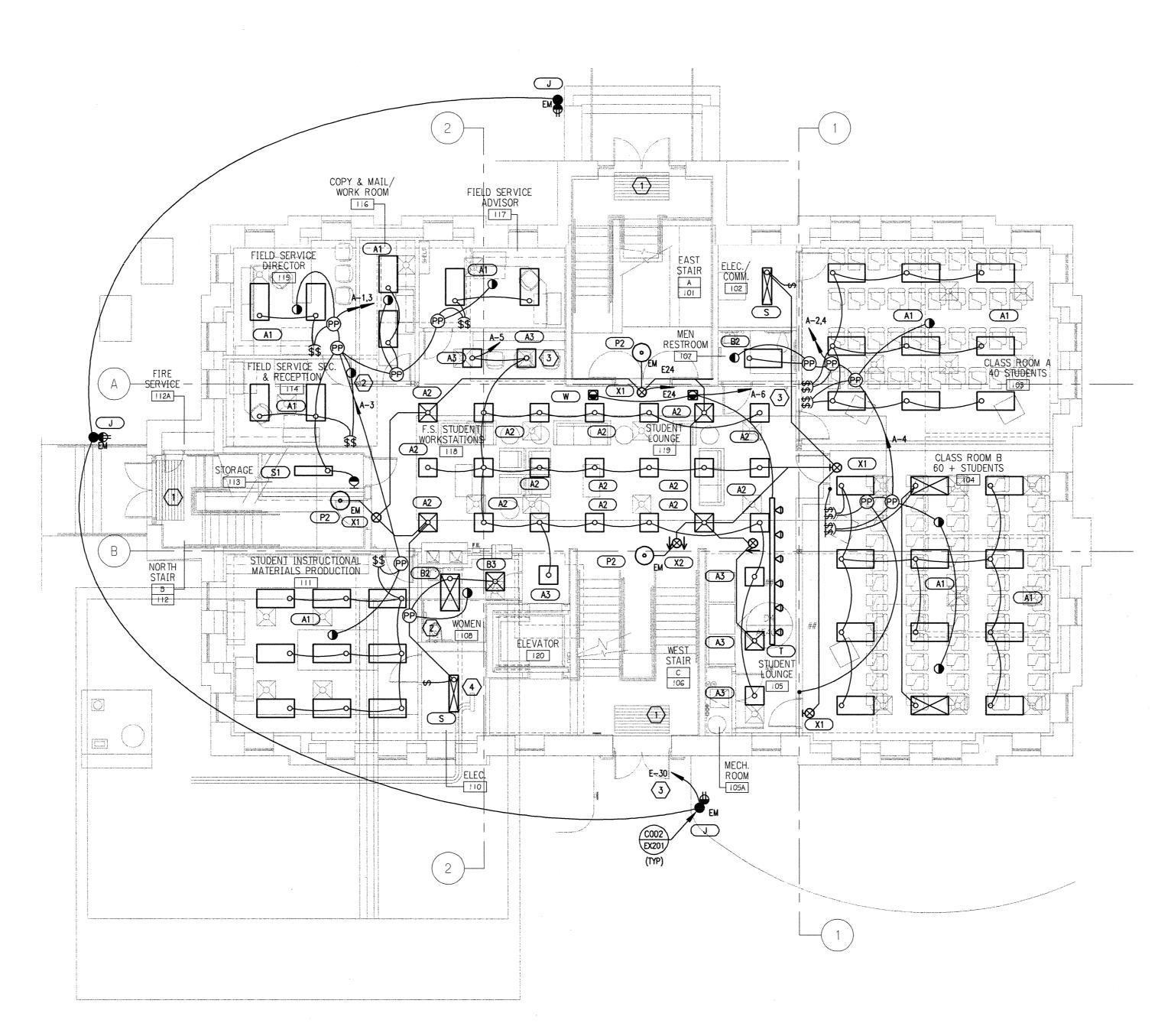
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LIGHTING PLAN

**BASEMENT LEVEL** 



LIGHTING PLAN-MAIN LEVEL

PLAN NORTH

#### GENERAL NOTES

1. REFER TO SHEET AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507, AND AE508.

#### SHEET KEYNOTES

- 1) LIGHT FOR THIS LANDING IS SHOWN ON SHEET EL102.
- 2 install power pack in an accessible location.
- CIRCUIT THROUGH LIGHTING CONTACTOR. TIME CLOCK C1 LOCATED ON 2ND FLOOR.
- (4) COORDINATE LIGHT FIXTURE PLACEMENT WITH EQUIPMENT LOCATIONS.

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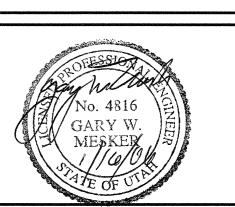


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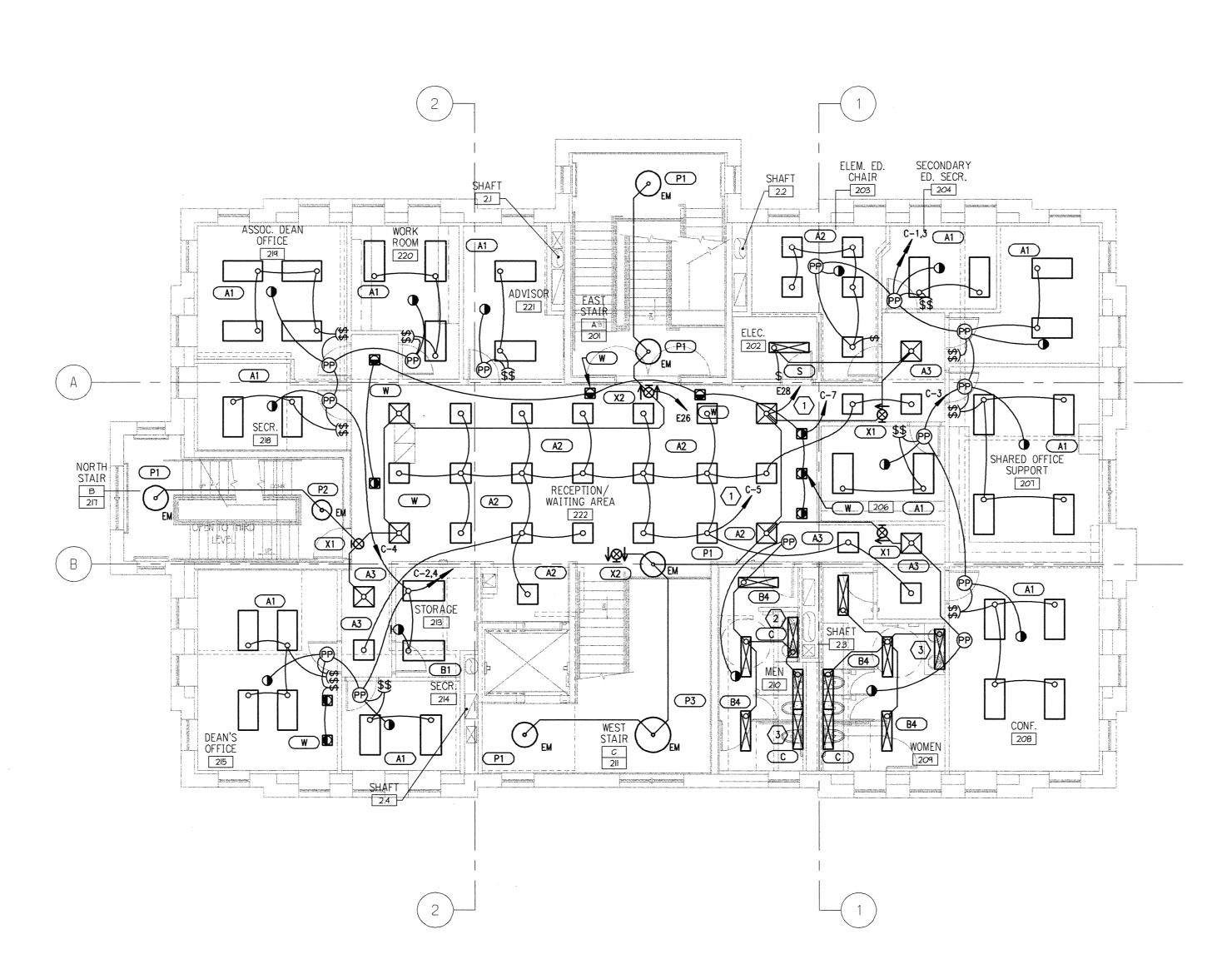
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LIGHTING PLAN MAIN LEVEL



PLAN NORTH

LIGHTING PLAN-SECOND LEVEL

1/8"=1'-0"

0 4' 8' 16'

#### GENERAL NOTES

 REFER TO SHEET AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507, AND AE508.

#### SHEET KEYNOTES

- 1 CIRCUIT LIGHTS THROUGH LIGHTING CONTACTOR C1 AND TIME CLOCK.
  2 PROVIDE UNSWITCHED LOG FOR SWITCHED OPERATION DURING NORMAL POWER.
- 3 WALL MOUNT AT CEILING HEIGHT.

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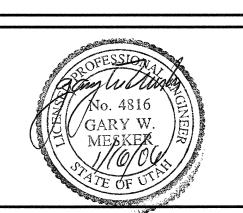
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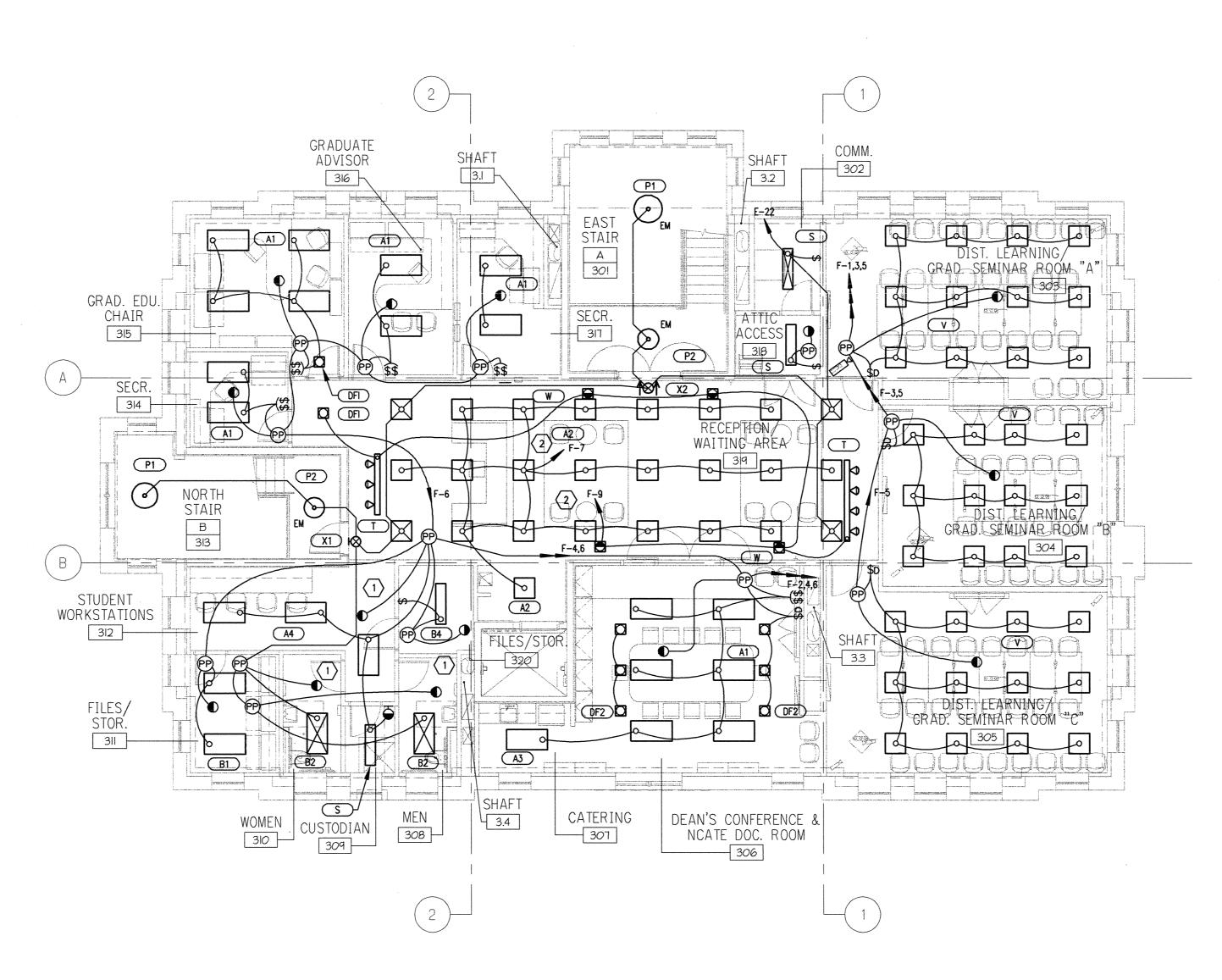
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> LIGHTING PLAN SECOND LEVEL



LIGHTING PLAN-THIRD LEVEL

#### GENERAL SHEET NOTES

REFER TO SHEET AE101 AND AE102 FOR LOCATIONS OF FIRE FATED WALLS AND FIRE FATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507 AND SE508.

#### SHEET KEYNOTES

- 1) INSTALL POWER PACK IN AN ACCESSIBLE LOCATION. CIRCUIT LIGHTS THROUGH TIME CLOCK/LIGHTING.
- 2 CIRCUIT LIGHTS THROUGH TIME CLOCK AND LIGHTING.
- 3 LOCATE SWITCH NEXT TO PIT LADDER. COORDINATE WITH ELEVATOR INSTALLER AND ELEVATOR SHOP DRAWINGS BEFORE ROUGH IN.
- 4 RE INSTALL EXISTING CHAIN HUNG LIGHT FIXTURE (PREVIOUSLY REMOVED ON ED101)

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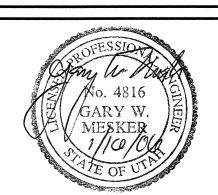


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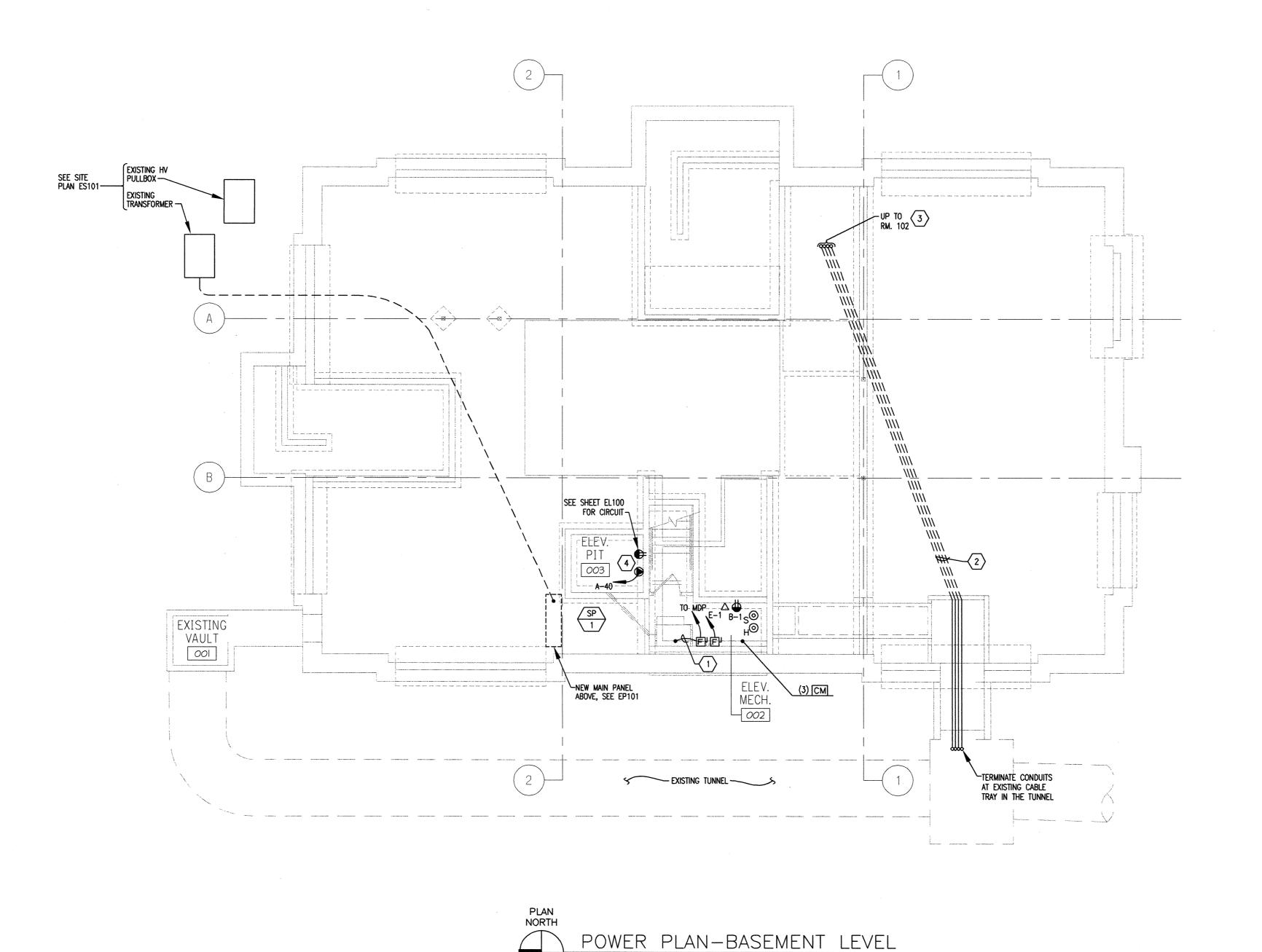
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LIGHTING PLAN THIRD LEVEL



#### SHEET KEYNOTES

- PROVIDE N.O./N.C. AUXILIARY CONTACTS IN ELEVATOR MAIN DISCONNECT. RUN 3 #12, 3/4" CONDUIT FROM CONTACTS TO ELEVATOR CONTROLLER.
- $\langle 2 \rangle$  (4) 4" CONDUITS FOR VOICE/DATA SERVICE.
- $\langle \mathfrak{Z} \rangle$  STUB UP AT WEST WALL OF ELECT./COMM RM 102.
- OUTLET FOR PORTABLE SUMP PUMP, COORDINATE NEMA CONFIGURATION FOR RECEPTACLE WITH SHOP DRAWINGS

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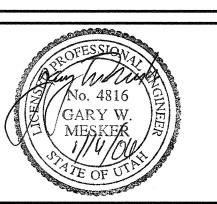


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> POWER PLAN **BASEMENT LEVEL**

**EP100** 

#### GENERAL SHEET NOTES

- REFER TO AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506,
- PROVIDE (1) 3/4" CONDUIT FROM EACH TELEPHONE, DATA, AND TELE/DATA OUTLET TO THE
- TERMINAL BOARDS IN ELECT/COMM ROOM 102. 3. WALL CONSTRUCTION IS WOOD STUDS. ALL HORIZONTAL CONDUIT IN WALLS SHALL BE FLEXIBLE

# F.A. REMOTE COPY & MAIL/ WORK ROOM FIELD SERVICE DATA RACK (23) CONDUIT & WIRING TO ATS -DOWN WALL PARTITION WALL TO BELOW FLOOR SLAB (24) CONNECT TO EXISTING —/ CONDUITS (FROM GENERATOR)

POWER PLAN-MAIN LEVEL

#### SHEET KEYNOTES

- $\langle 1 \rangle$  provide empty conduits with pull string for future capability.
- angle provide duplex receptacle and control junction box flush in ceiling for projector. COORDINATE EXACT LOCATION WITH ARCHITECT. SEE SHEET EY102 FOR PROJECTOR CONTROL
- PROVIDE RECEPTACLE FOR POWER TO PLASMA DISPLAY. COORDINATE LOCATION/HEIGHT WITH ARCHITECTURAL & EQUIP. SHOP DRAWINGS.
- 4 PROVIDE RED COLORED RECEPTACLES FOR DEVICES ON EMERGENCY POWER.
- PROVIDE N.O./N.C. AUXILIARY CONTACTS IN ELEVATOR MAIN DISCONNECT. RUN (3) #12, 3/4" CONDUITS FROM CONTACTS TO ELEVATOR CONTROLLER.
- PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING AND 120V. CIRCUIT FOR VAV BOX POWER. COORDINATE EXACT LOCATION WITH MECH CONTRACTOR.
- $\overline{\langle 7 \rangle}$  PROVIDE OUTLETS FOR COURTESY PHONE.
- (8) DEDICATED EMERGENCY RECEPTACLE FOR SECURITY.
- (9) PROVIDE POWER TO ADA DOOR OPERATOR.
- (10) WIRELESS TYPE ACTUATOR PUSH-PLATE (BY DIV.11) FOR DOOR OPERATOR. PROVIDE JUNCTION
- (11) WIRELESS TYPE ACTUATOR PUSH-PLATE (BY DIV 11) FOR DOOR OPERATOR AUTOMATIC DOOR, PROVIDE WEATHER PROOF JUNCTION BOX ROUGH-IN. MOUNT ON PEDESTAL (PEDESTAL BY DIV
- PROVIDE POWER TO FIRE SPRINKLER BELL. SEE SHEET EY101.
- (13) 2-COMPARTMENT FLOOR BOX.
- floor box. Power, Tele/Data, Control, av. see sheet ey102 for av conduits and control conduits.
- PROVIDE RECEPTACLES FOR POWER TO SMART BOARD. COORDINATE EXACT LOCATION/HEIGHT WITH ARCHITECTURAL & EQUIP. SHOP DRAWINGS.
- 1-1/4"C. UP TO BELFRY FOR CABLING OF CAMPUS BELL ("CAROLON") SYSTEM. EXTEND CONDUIT FROM SERVER LOCATION TO ROOF BELFRY SPEAKERS.
- JUNCTION BOX AT RECEPTACLE HEIGHT (16") WITH 3/4" C. TO TELEPHONE TERMINAL BOARD (FUTURE TELE/DATA CAPABILITY).
- LOCATE FLOOR BOX AT TEACHERS STATION. COORDINATE EXACT LOCATION WITH ARCHITECTURAL PRIOR TO ROUGH-IN.
- PROVIDE TELEPHONE OUTLET AND RECEPTACLE FOR COURTESY PHONE. COORDINATE EXACT HEIGHT WITH ARCHITECTURAL.
- PROVIDE POWER CONNECTION AND CONTROL CONDUIT FOR OWNER-FURNISHED READER BOARD.
  RUN 3/4" C. TO ELECTRICAL ROOM 110 (TELE/DATA SIDE) FOR CONTROL. COORDINATE EXACT LOCATION OF READER BOARD WITH ARCHITECTURAL PRIOR TO ROUGH—IN.
- PROVIDE POWER TO HOLD-OPENS (BY DIVISION 11) THROUGH FIRE ALARM RELAY, ALSO SEE SHEET EY101. 22 INSTALL AND CONNECT PROJECTOR SCREEN CONTROL STATION. PROVIDE CONTROL WIRING AS REQUIRED. COORDINATE EXACT LOCATION OF CONTROL WITH ARCHITECTURAL.
- $\langle 23 \rangle$  SEE SHEET ES101. PROVIDE JUNCTION BOX FLUSH IN WALL (FOR WIRE PULL) WHERE CONDUITS ENTER ROOM. THEN RUN CONDUITS DOWN TO BELOW FLOOR SLAB.
- (25) RUN CONDUITS BELOW FLOOR TO ATS IN ELECTRICAL ROOM 110.
- (26) PROVIDE ON-OFF PUSHBUTTON STATION, LABEL "ICE MELT", RUN 4#12,3/4" TO ICE MELT POWER PANEL & CONTACTOR IN ATTIC. WIRE FOR ON-OFF CONTROL OF ICE MELT SYSTEM (NO AUTOMATIC CONTROL).
- (27) LOCATE RECEPTACLE NEXT TO SECURITY JUNCTION BOX.

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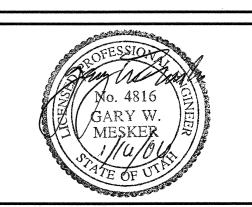


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POWER PLAN MAIN LEVEL

**EP101** 

#### GENERAL SHEET NOTES

- REFER TO AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507, AND AE508.
- PROVIDE (1) 3/4" CONDUIT FROM EACH TELEPHONE, DATA, AND TELE/DATA OUTLET TO THE TERMINAL BOARDS IN ELECTRICAL ROOM 202.
- 3. WALL CONSTRUCTION IS WOOD STUDS. ALL HORIZONTAL CONDUIT IN WALLS SHALL BE FLEXIBLE METAL CONDUIT.

#### SHEET KEYNOTES

- 1 PROVIDE EMPTY CONDUITS WITH PULL STRING FOR FUTURE CAPABILITY.
- PROVIDE DUPLEX RECEPTACLE AND FOR POWER TO PLASMA DISPLAY. COORDINATE LOCATION/HEIGHT WITH ARCHITECTURAL AND EQUIPMENT SHOP DRAWINGS.
- PROVIDE RECEPTACLE FOR POWER TO SMART BOARD. COORDINATE LOCATION/HEIGHT WITH ARCHITECTURAL AND EQUIPMENT SHOP DRAWINGS.
  - 4 PROVIDE RED COLORED RECEPTACLES FOR DEVICES ON EMERGENCY POWER.
  - PROVIDE N.O./N.C. AUXILIARY CONTACTS IN ELEVATOR MAIN DISCONNECT. RUN (3) #12, 3/4" CONDUITS FROM CONTACTS TO ELEVATOR CONTROLLER.
- PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING AND 120V. CIRCUIT FOR VAV BOX POWER. COORDINATE EXACT LOCATION WITH MECH CONTRACTOR.
- 7 PROVIDE OUTLETS FOR COURTESY PHONE.
- (8) DEDICATED EMERGENCY RECEPTACLE FOR SECURITY.
- (9) PROVIDE POWER TO AUTOMATIC DOOR OPERATOR.
- PROVIDE JUNCTION BOX FOR DOOR OPERATOR PUSH PLATE (BY DIV.11). PROVIDE (3) #14, 3/4" C. CONTROL WIRING AND CONNECTIONS TO PUSH PLATE AND OPERATOR.
- WIRELESS TYPE ACTUATOR FOR AUTOMATIC DOOR, PROVIDE WEATHER PROOF JUNCTION BOX ROUGH IN.
- 12 PROVIDE POWER TO FIRE SPRINKLER BELL. SEE SHEET EY101. (13) 2-COMPARTMENT FLOOR BOX.
- (14) FLOOR BOX. POWER, TELE/DATA, CONTROL, AV. SEE SHEET EY102 FOR CONDUITS.
- (15) 1-COMPARTMENT FLOOR BOX.
- (16) PROVIDE 1" CONDUIT TO BELFREY ABOVE ATTIC.
- (17) PROVIDE POWER TO HOLD OPEN BY (DIVISION 11).
- (18) NOT USED



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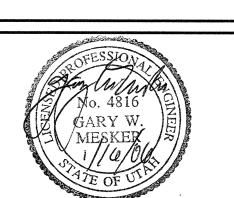
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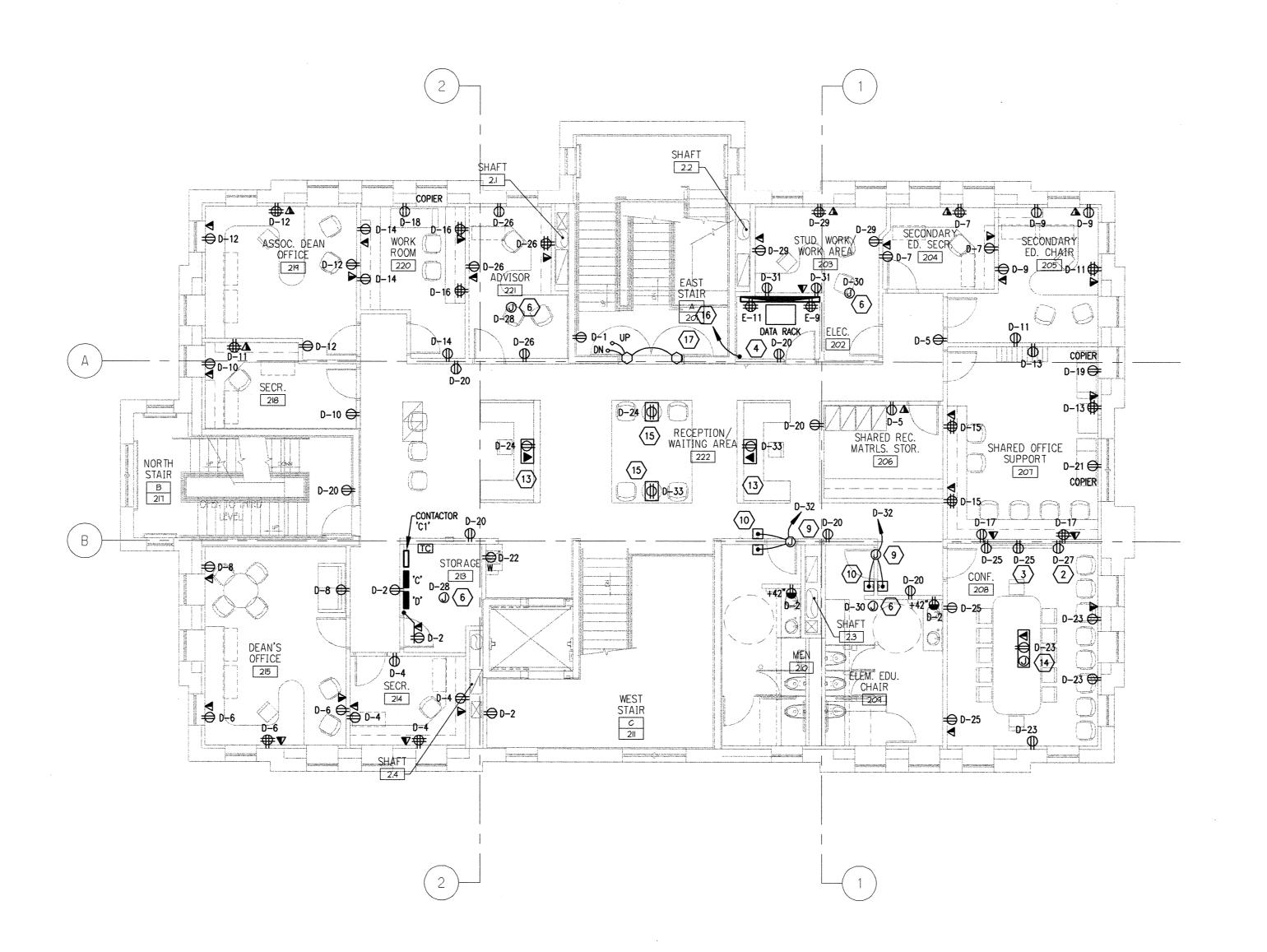
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ARCHITECT PROJECT NO.: B04-012 DFCM PROJECT NO.: 03234730

POWER PLAN

SECOND LEVEL

**EP102** 



POWER PLAN-SECOND LEVEL

1/8"=1'-0"

0 4' 8'

#### GENERAL NOTES

- REFER TO AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507, AND AE508.
- 2. PROVIDE (1) 3/4" CONDUIT FROM EACH TELEPHONE, DATA, AND TELE/DATA OUTLET TO THE TERMINAL BOARDS IN ELEC/COMM. ROOM 302.
- 3. WALL CONSTRUCTION IS WOOD STUDS. ALL HORIZONTAL CONDUIT IN WALLS SHALL BE FLEXIBLE METAL CONDUIT.

#### SHEET KEYNOTES

- 1 PROVIDE EMPTY CONDUITS WITH PULL STRING FOR FUTURE CAPABILITY.
- PROVIDE DUPLEX RECEPTACLE FOR POWER TO PLASMA DISPLAY. COORDINATE LOCATION/HEIGHT WITH ARCHITECTURAL AND EQUIPMENT SHOP DRAWINGS.
- PROVIDE RECEPTACLE FOR POWER TO SMART BOARD. COORDINATE LOCATION/HEIGHT WITH ARCHITECTURAL AND EQUIPMENT SHOP DRAWINGS.
- 4 PROVIDE RED COLORED RECEPTACLES FOR DEVICES ON EMERGENCY POWER. PROVIDE N.O./N.C. AUXILIARY CONTACTS IN ELEVATOR MAIN DISCONNECT. RUN 3#12,3/4" CONDUITS FROM CONTACTS TO ELEVATOR CONTROLLER.
- (6) PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING AND 120V. CIRCUIT FOR VAV BOX POWER.
- COORDINATE EXACT LOCATION WITH MECH CONTRACTOR.
- 7 PROVIDE OUTLETS FOR COURTESY PHONE.

(13) 2-COMPARTMENT FLOOR BOX.

- (8) DEDICATED EMERGENCY RECEPTACLE FOR SECURITY.
- (9) PROVIDE POWER TO AUTOMATIC DOOR OPERATOR. PROVIDE JUNCTION BOX FOR DOOR OPERATOR PUSH-PLATE (BY DIV. 11). PROVIDE (3) #14,3/4" C. CONTROL WIRING AND CONNECTIONS TO PUSH-PLATE AND OPERATOR.
- WIRELESS TYPE ACTUATOR FOR AUTOMATIC DOOR, PROVIDE WEATHER PROOF JUNCTION BOX ROUGH IN.
- $\overline{\langle 12 \rangle}$  provide power to fire sprinkler bell. See sheet ey101.
- FLOOR BOX. POWER, TELE/DATA, AV. CONTROL. LOCATE BELOW CENTER OF TABLE. SEE SHEET EY102 FOR AV CONDUITS AND CONTROL CONDUITS.
- (15) 1- COMPARTMENT FLOOR BOX.
- (16) PROVIDE 1" CONDUIT TO BELFRY ABOVE ATTIC.
- (17) PROVIDE POWER TO HOLD-OPENS (BY DIVISION 11).
- (18) NOT USED (19) NOT USED
- (20) COORDINATE EXACT LOCATION WITH DIVISION 15.

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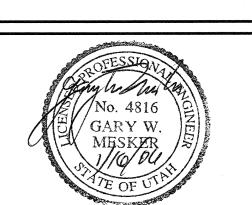


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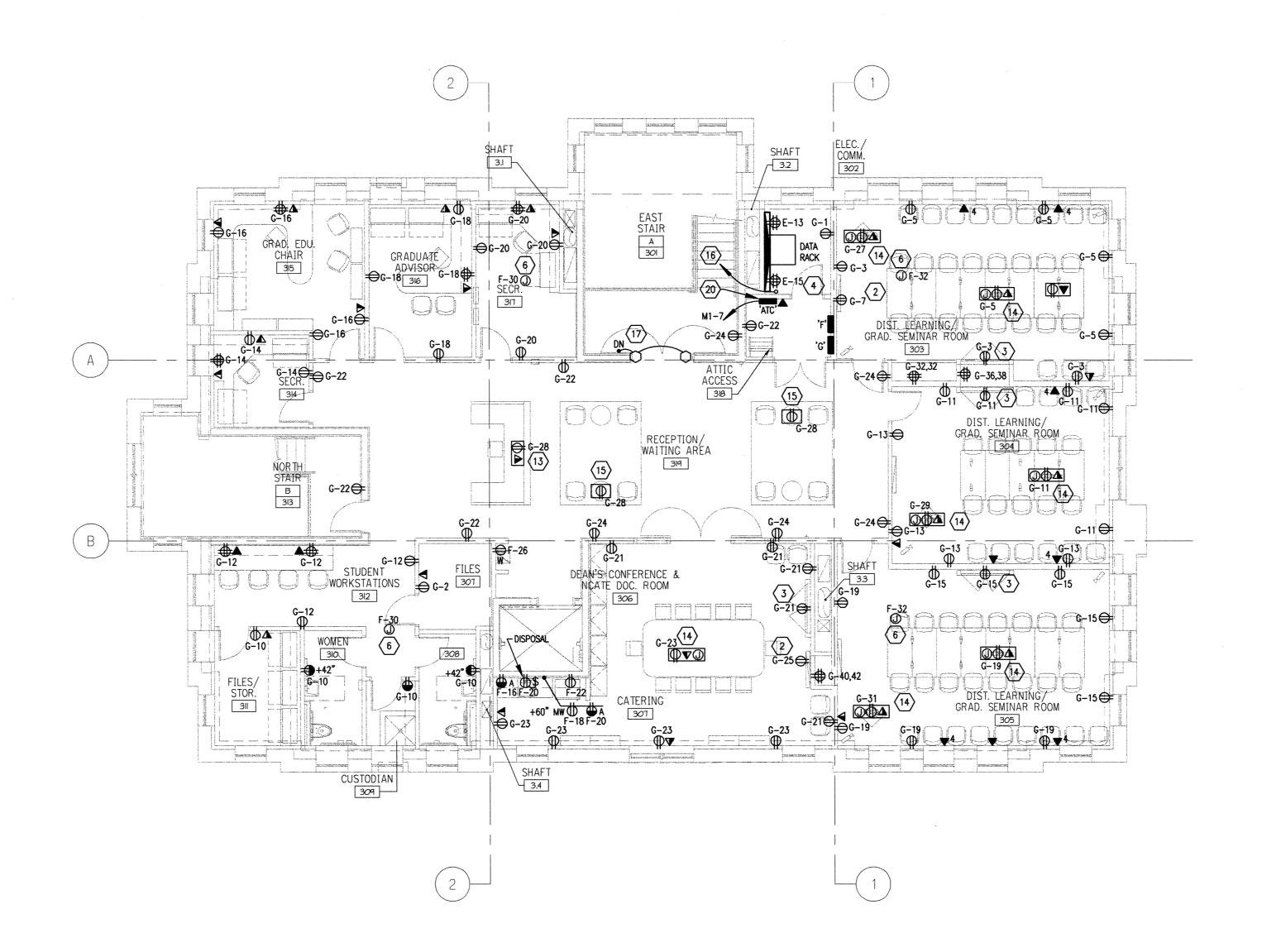
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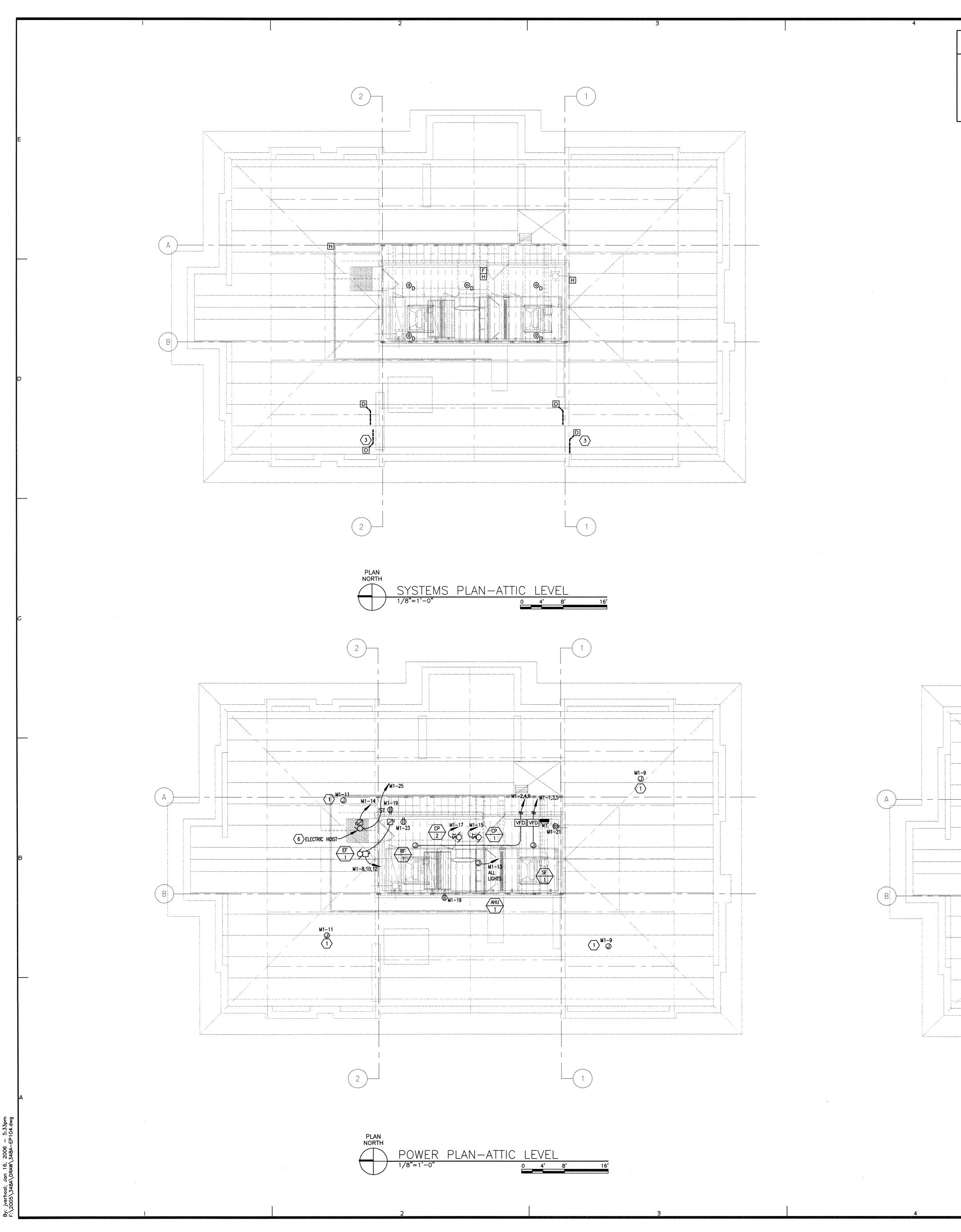
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> POWER PLAN THIRD LEVEL

**EP103** 







#### GENERAL NOTES

- REFER TO AE101 AND AE102 FOR LOCATIONS OF FIRE RATED WALLS AND FIRE RATED SHAFTS. CONDUIT PENETRATIONS AND OTHER ELECTRICAL PENETRATIONS THROUGH THESE WALLS SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN THE DETAILS ON ARCHITECTURAL SHEETS AE506, AE507, AND AE508.
- 2. PROVIDE (1) 3/4" CONDUIT FROM EACH TELEPHONE, DATA, AND TELE/DATA OUTLET TO THE TERMINAL BOARDS IN ELEC/COMM ROOM 302.
- 3. WALL CONSTRUCTION IS WOOD STUDS. ALL HORIZONTAL CONDUIT IN WALLS SHALL BE FLEXIBLE METAL CONDUIT.

LIGHTING PLAN—ATTIC LEVEL

#### SHEET KEYNOTES

- PROVIDE JUNCTION BOX AND 120V. CIRCUIT FOR VAV BOX POWER. COORDINATE EXACT LOCATION WITH MECH CONTRACTOR.
- PROVIDE CONDUITS TO ROOF BELFRY EXISTING CAROLON (BELL) SYSTEM FROM AND RUN TO ELECTRICAL ROOMS. SEE SHEETS EP101, 102, AND 103.
- (3) COORDINATE EXACT LOCATION WITH DIVISION 15 CONTRACTOR
- 4 COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
- 5 CIRCUIT THROUGH LIGHTING CONTACTOR 'C1' AND TIME CLOCK LOCATED ON THE SECOND FLOOR.
- 6 PROVIDE DISCONNECT AND CONNECTIONS TO ELECTRIC HOIST CONTROLS (1 HP, 102V, SINGLE PHASE). VERIFY EXACT LOCATION WITH GENERAL CONTRACTOR.

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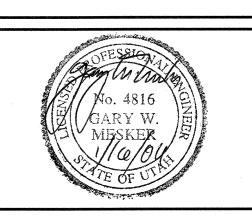
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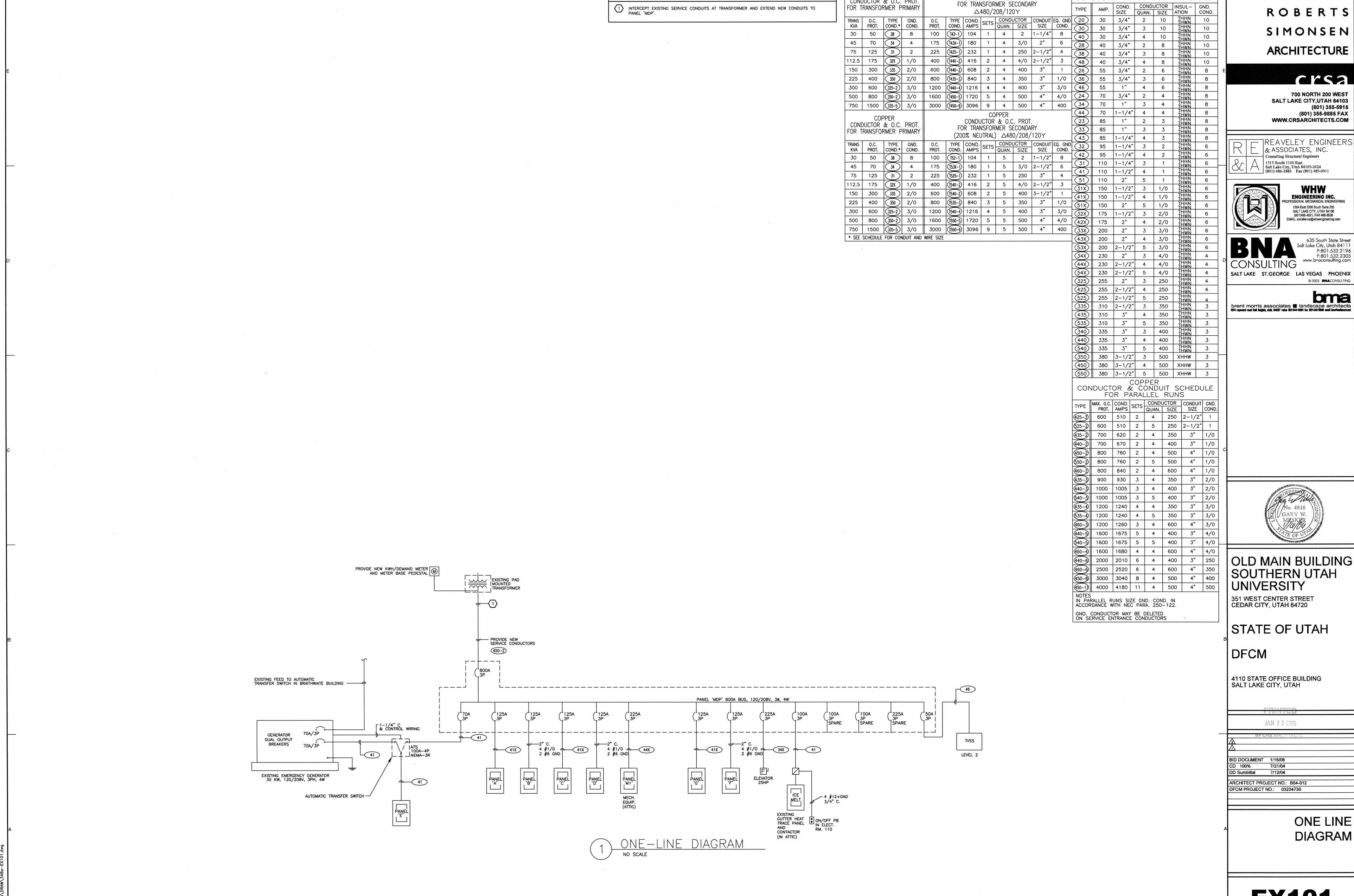
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LIGHTING, POWER & SYSTEMS PLAN ATTIC

**EP104** 



OSHEET KEYNOTES

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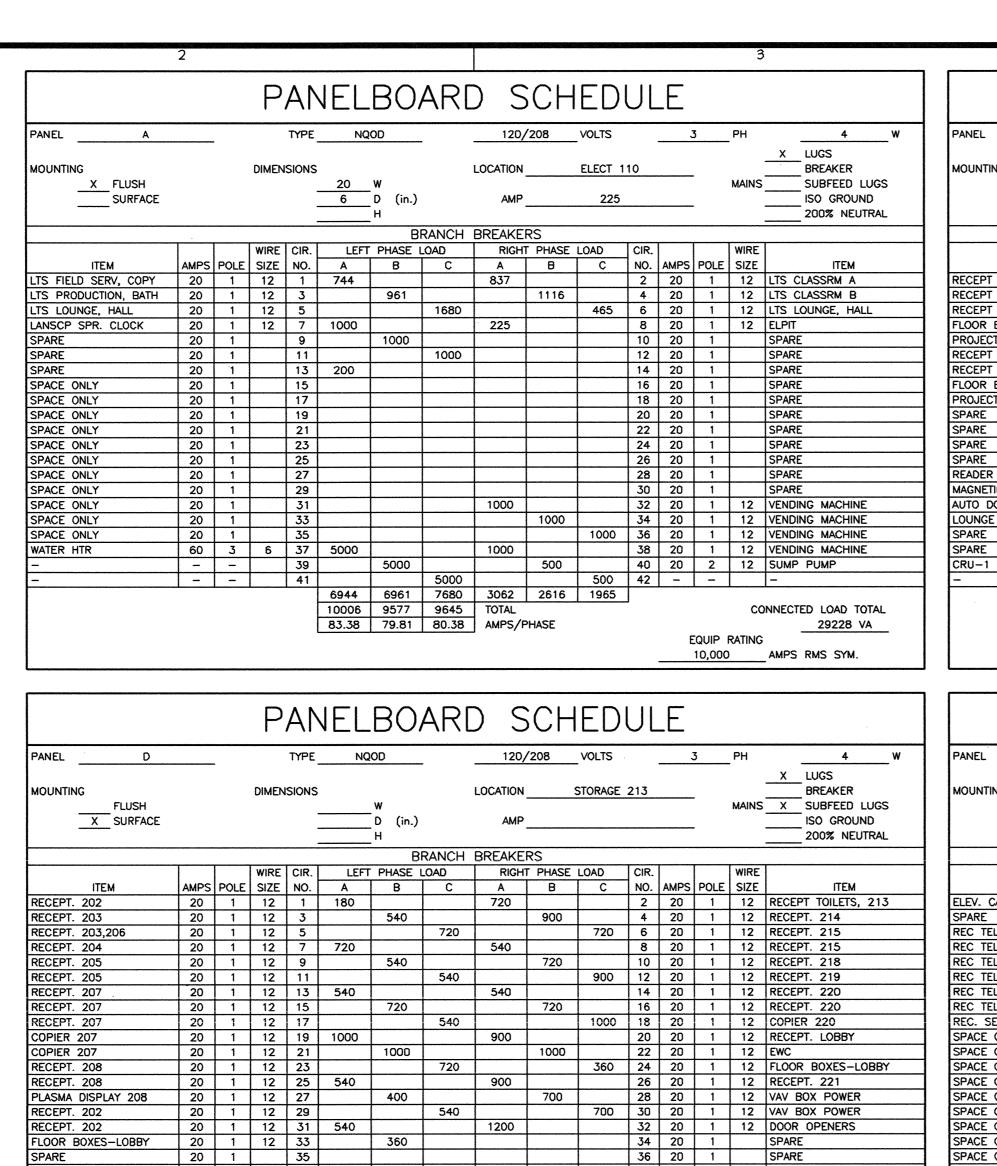
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CONDUCTOR & CONDUIT SCHEDULE

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3520 3560 3060 4800 4040 3680 8320 7600 6740 TOTAL 69.33 63.33 56.17 AMPS/PHASE

CONNECTED LOAD TOTAL

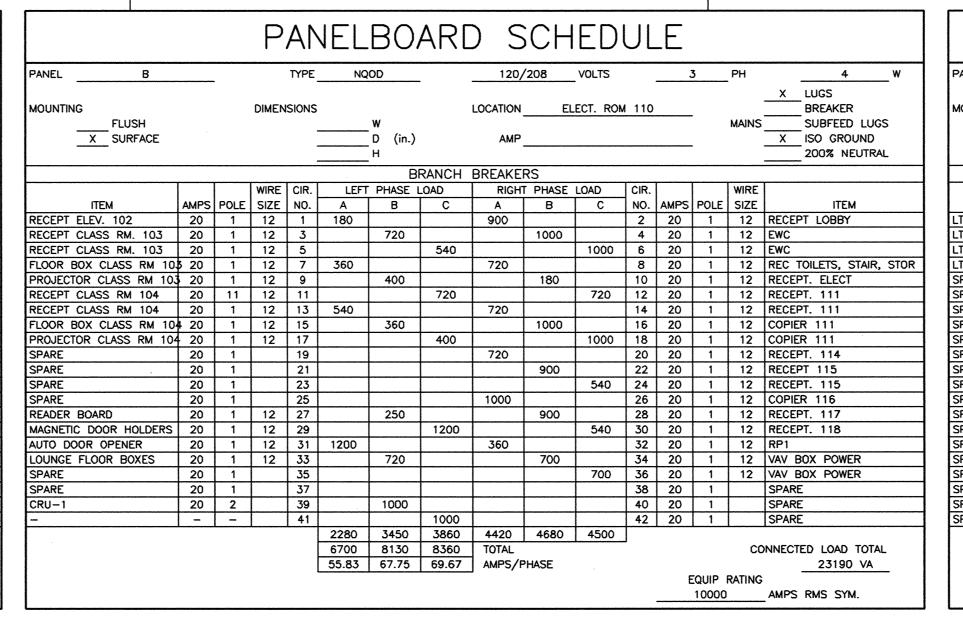
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10000 AMPS RMS SYM.

22660 VA

COPIER 20

PLASMA DISPLAY 208



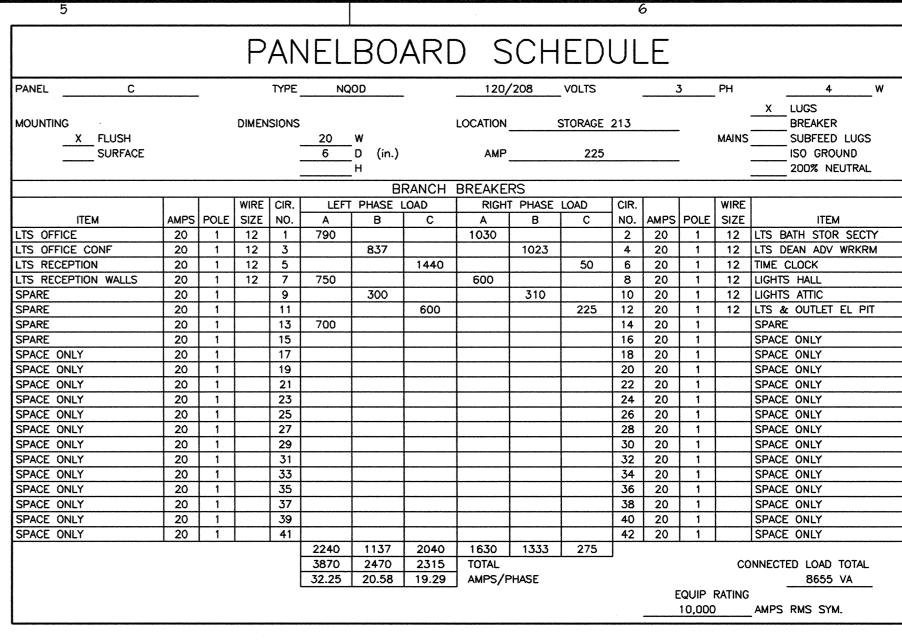
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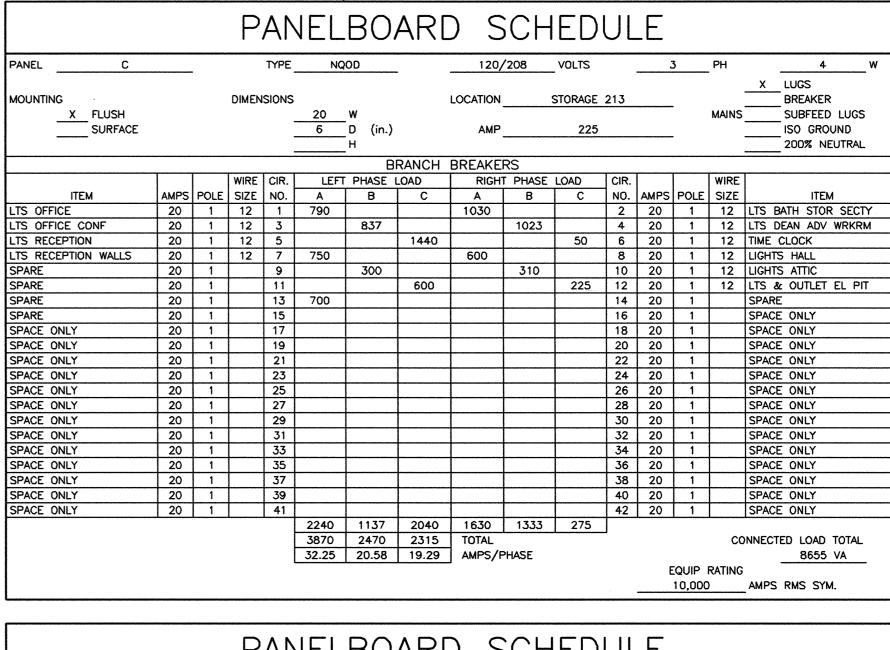
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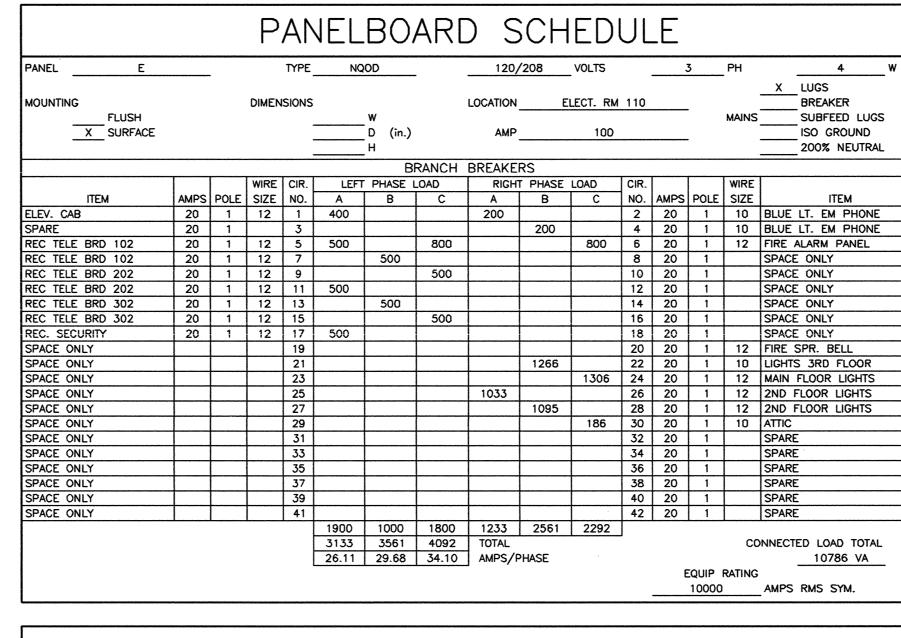
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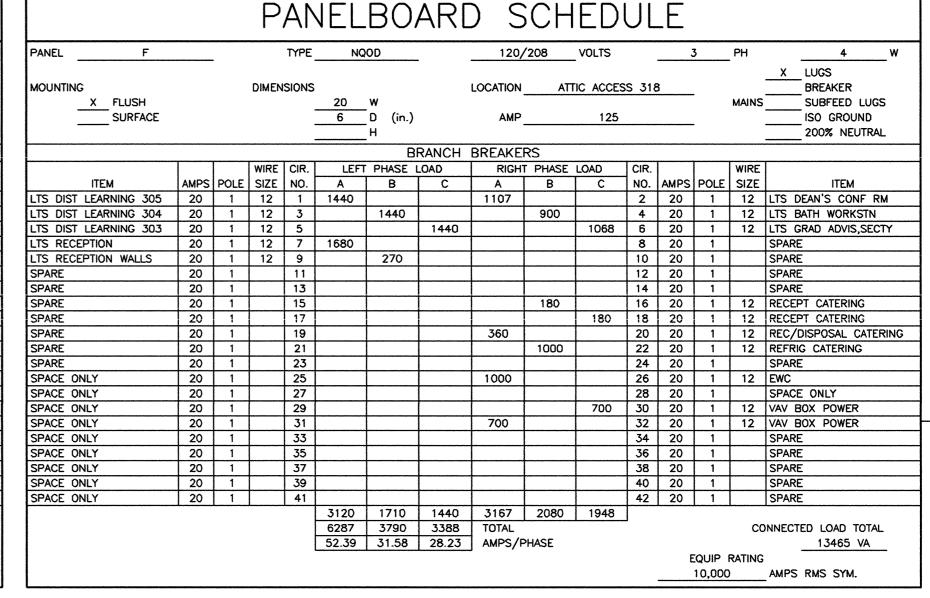
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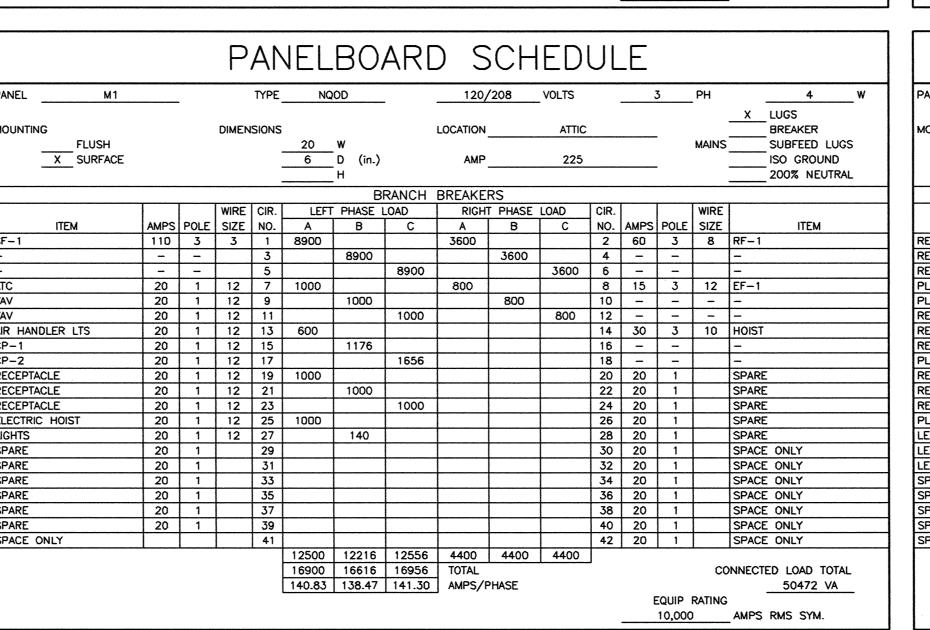
10786 VA

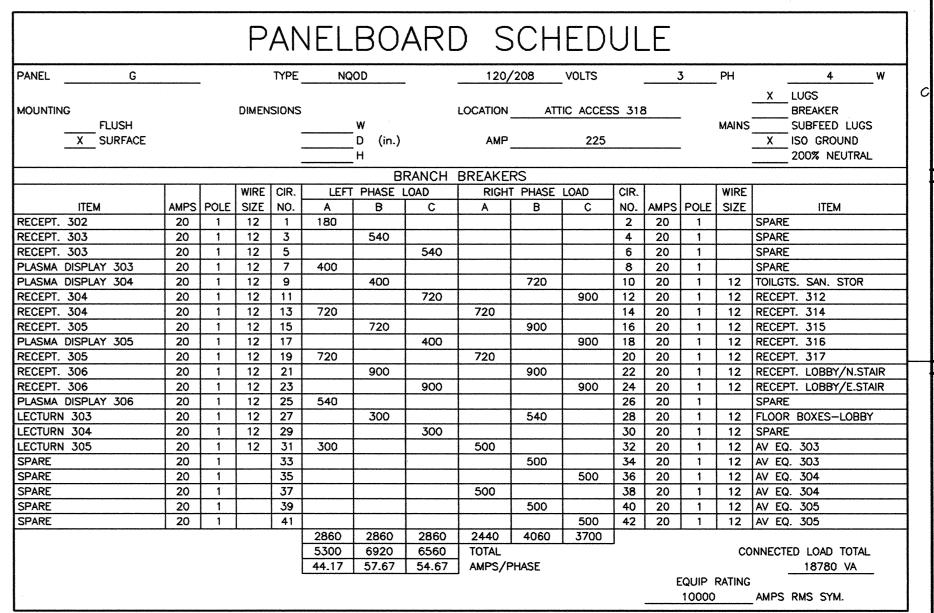












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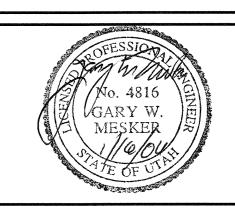


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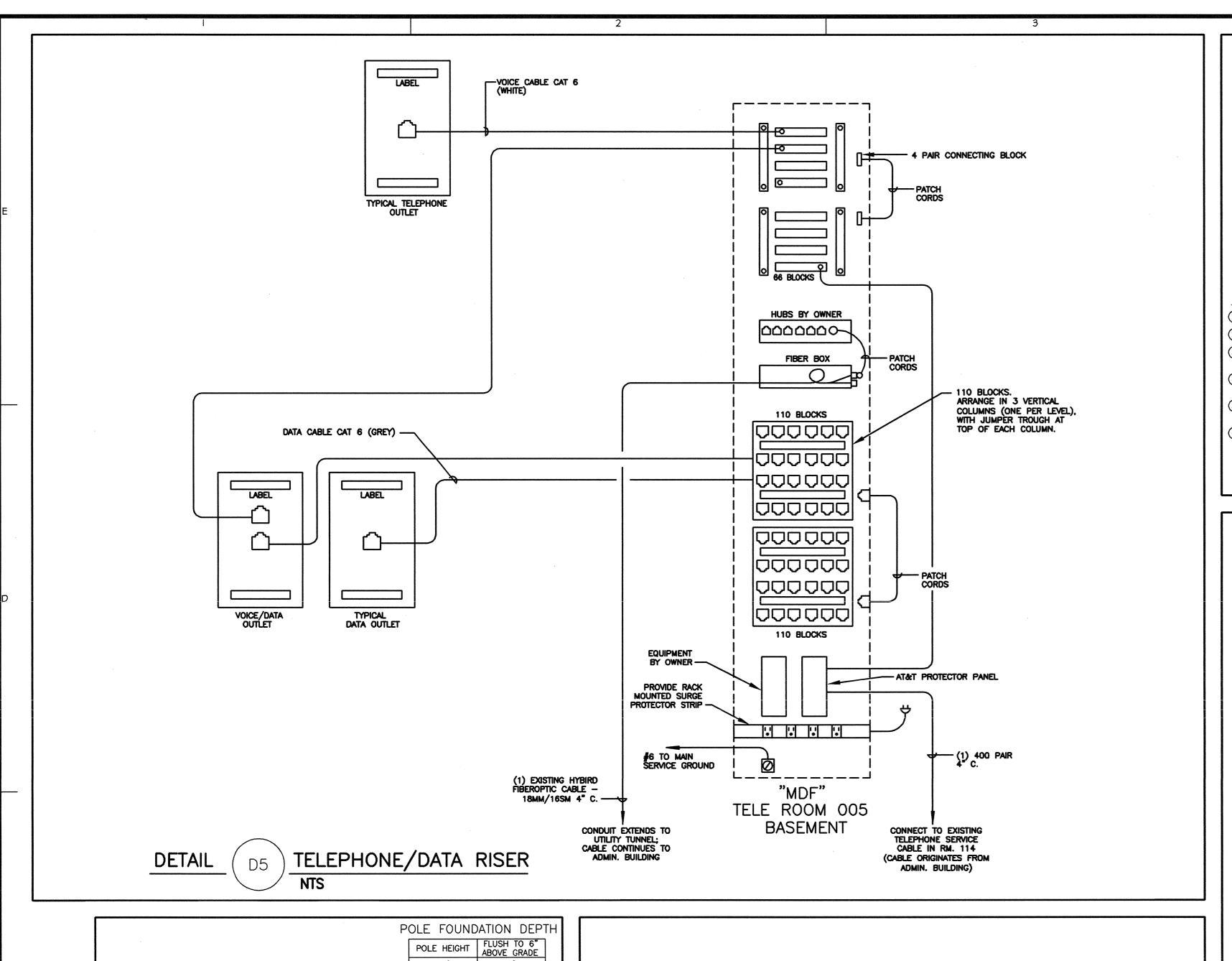
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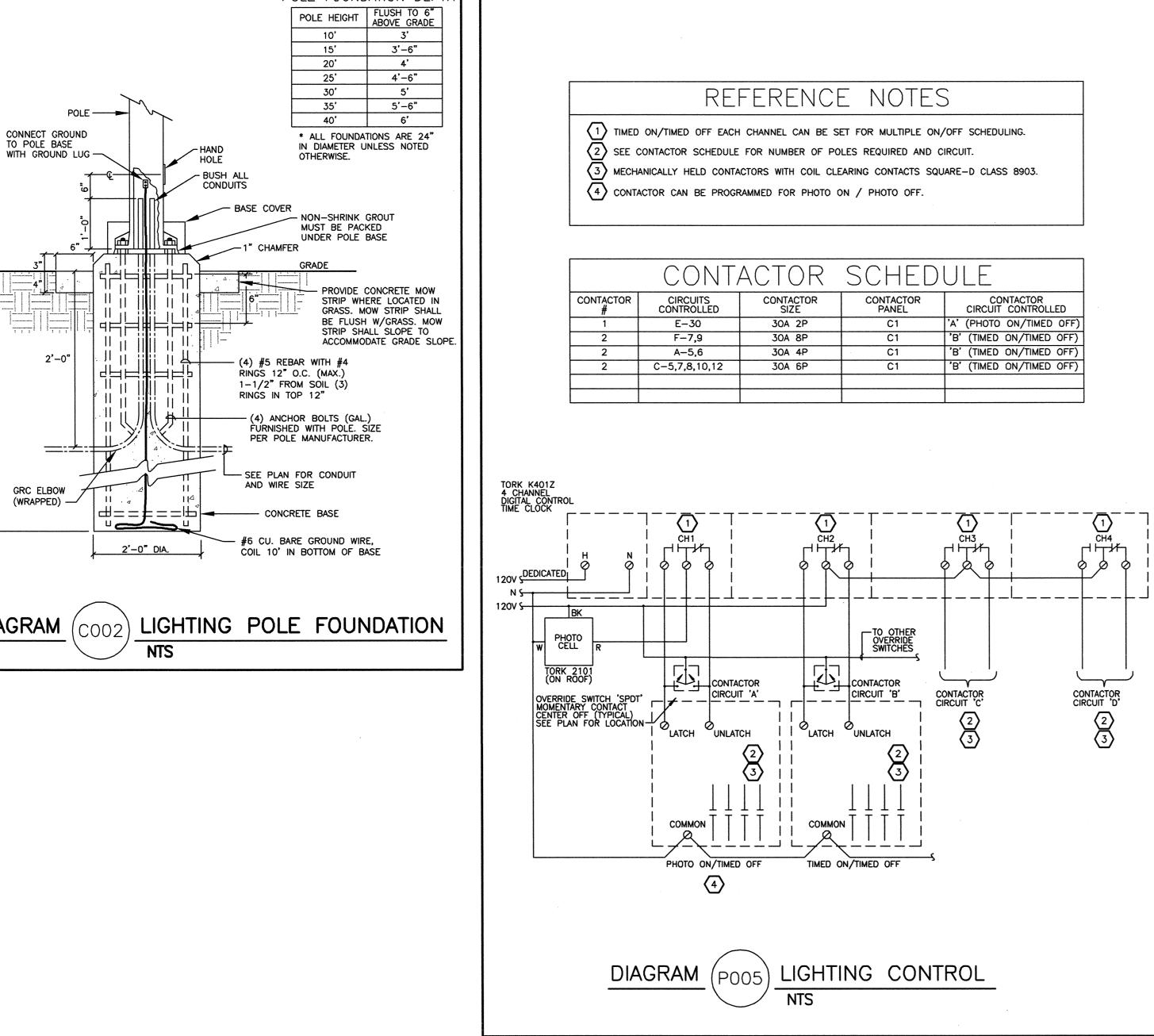
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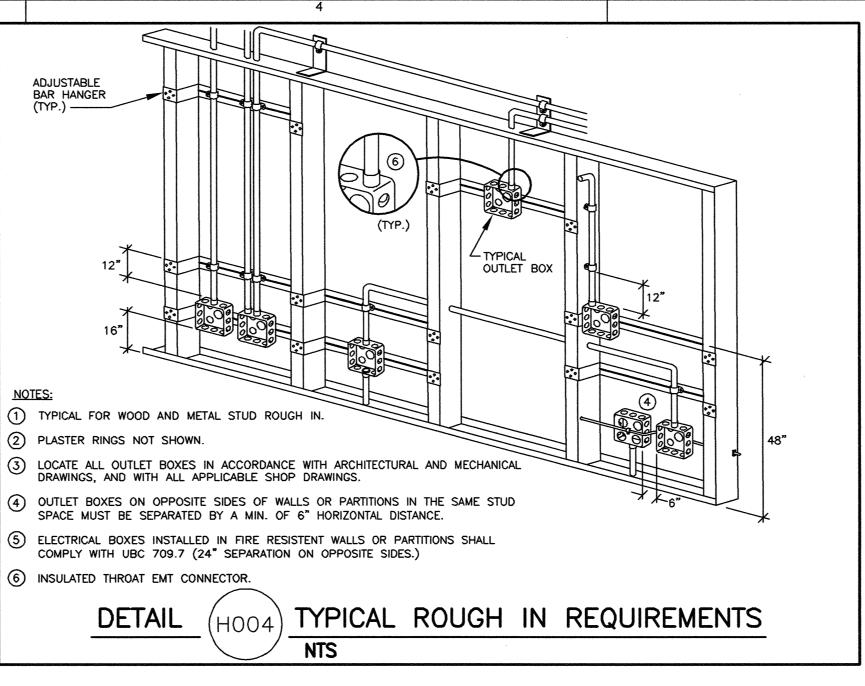
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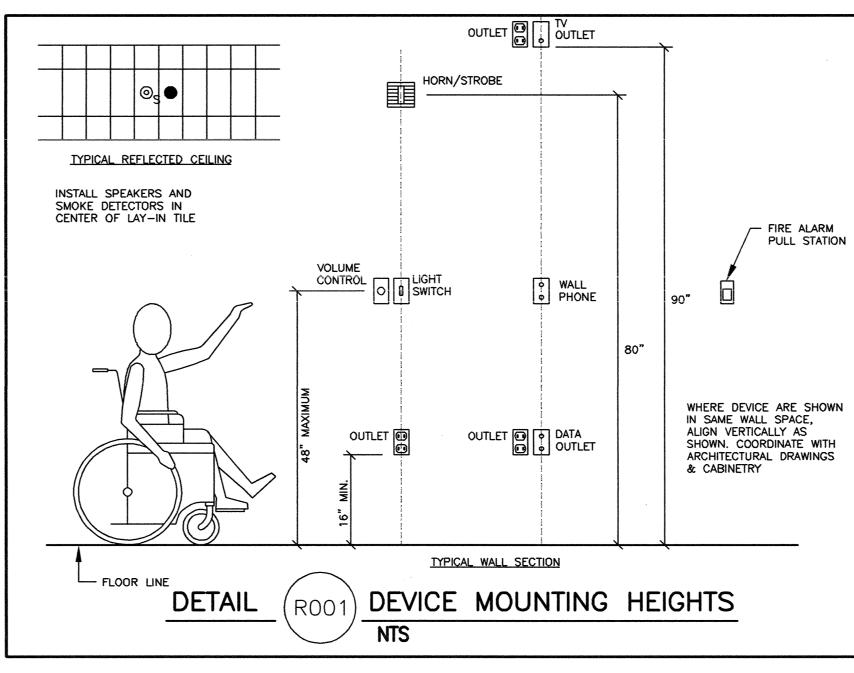
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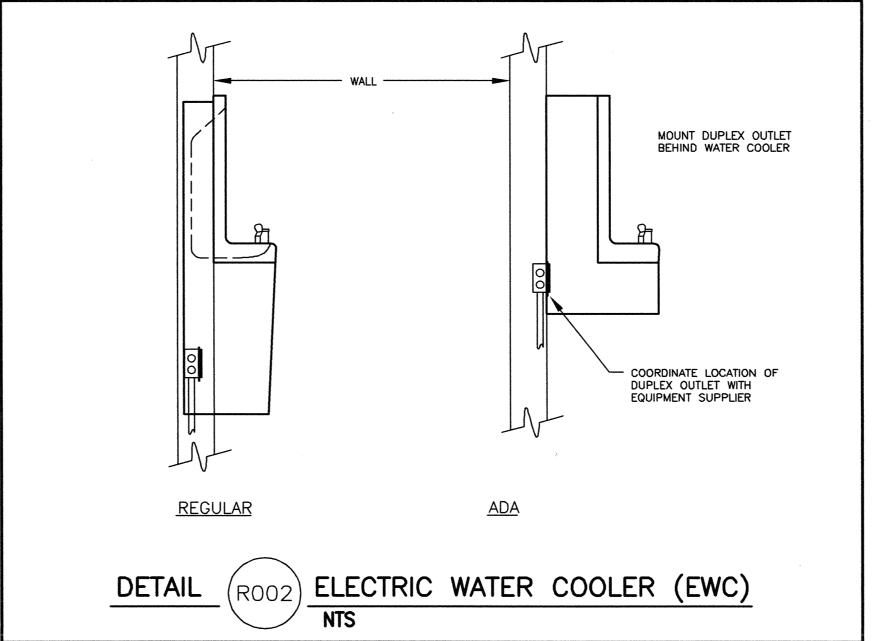
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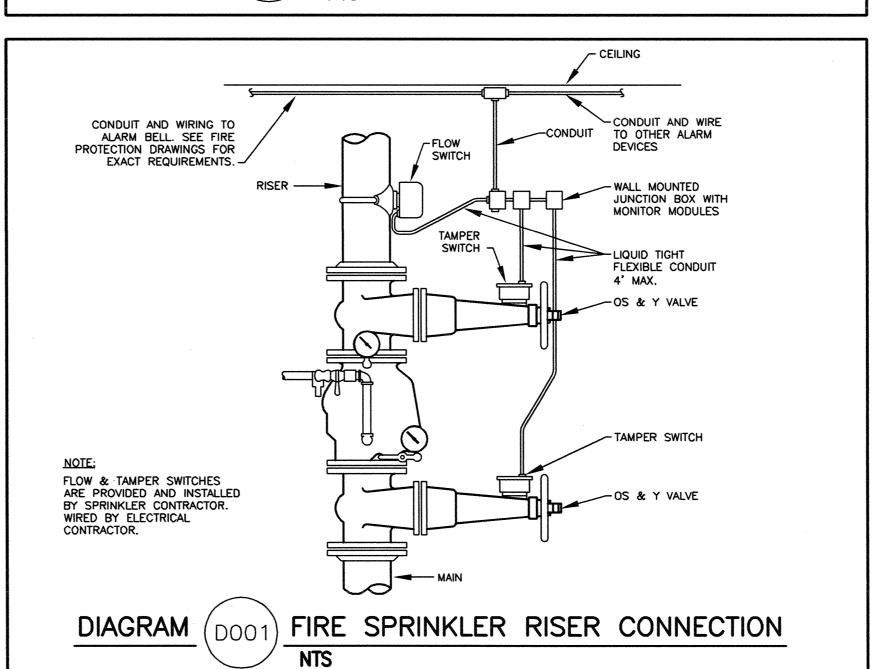


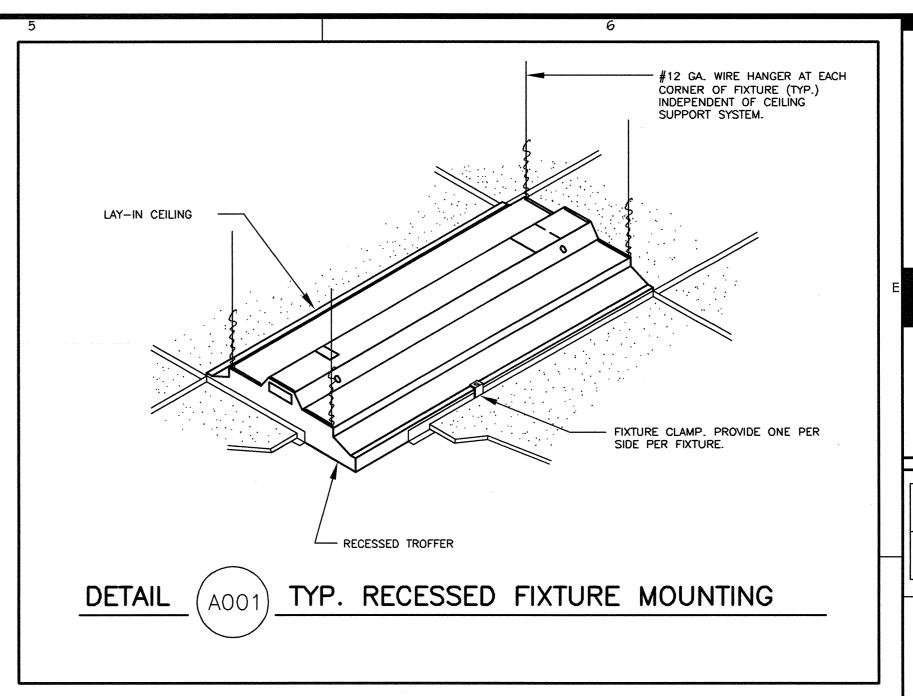


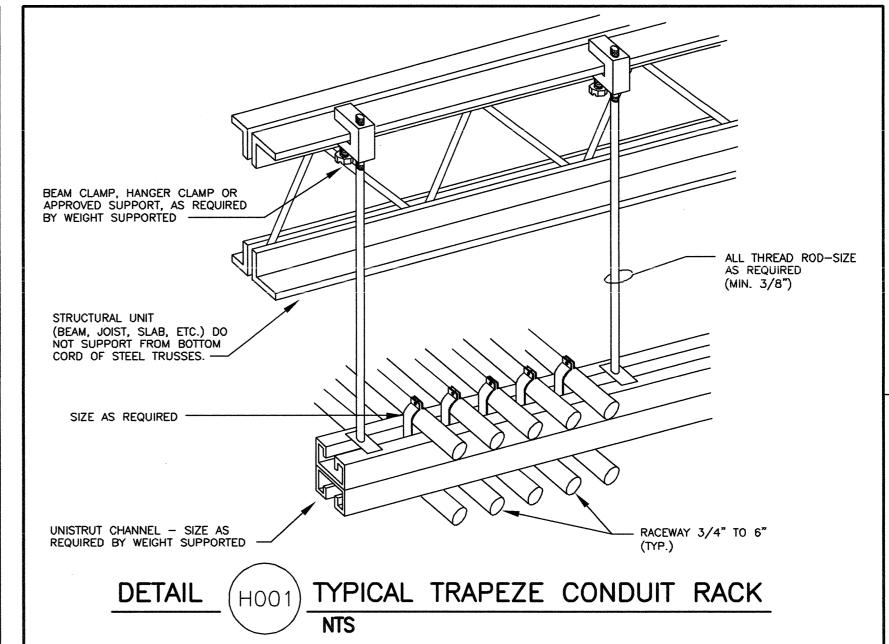


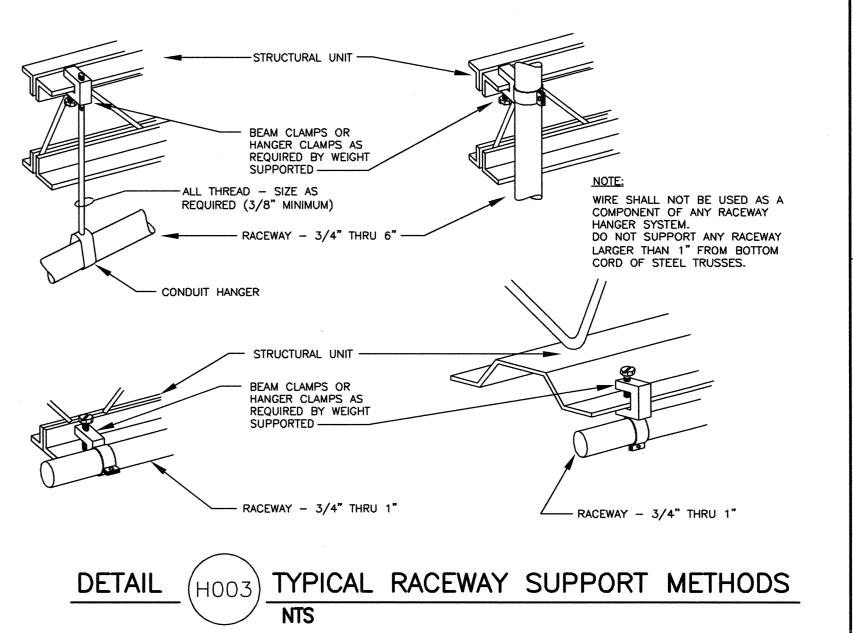


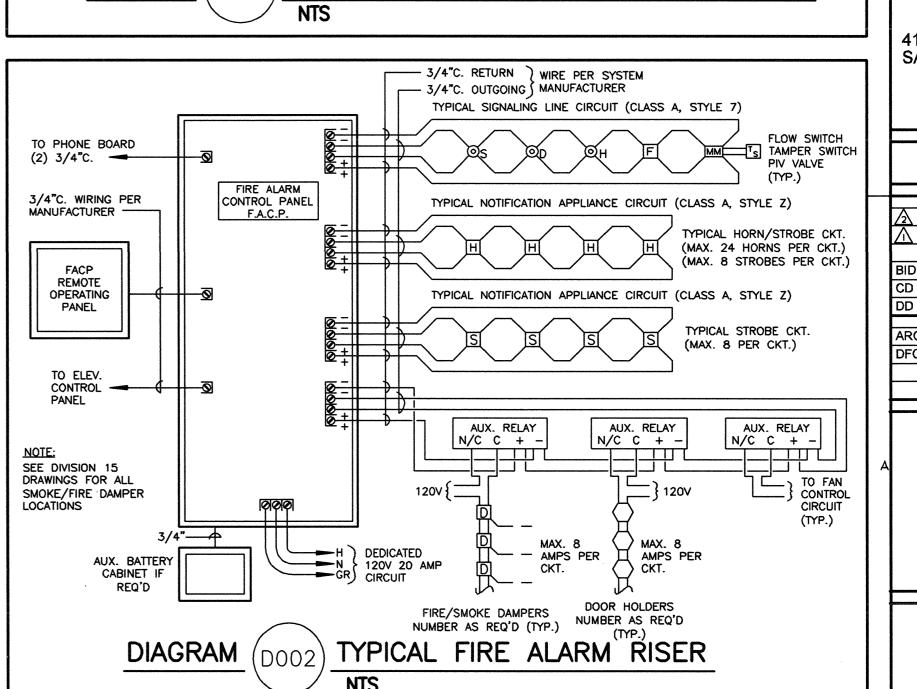














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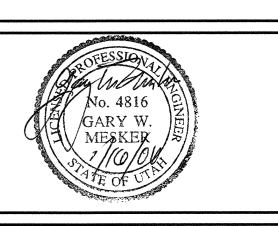


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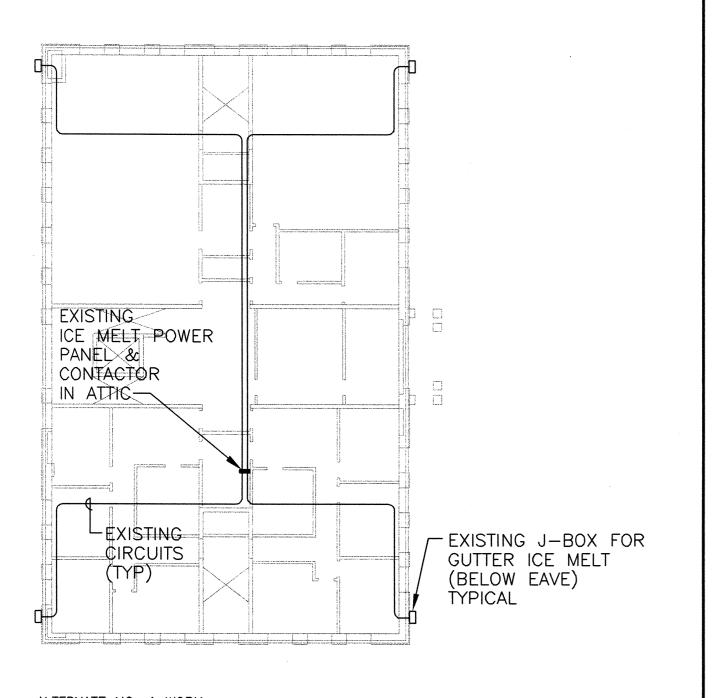
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> **ELECTRICAL DETAILS**

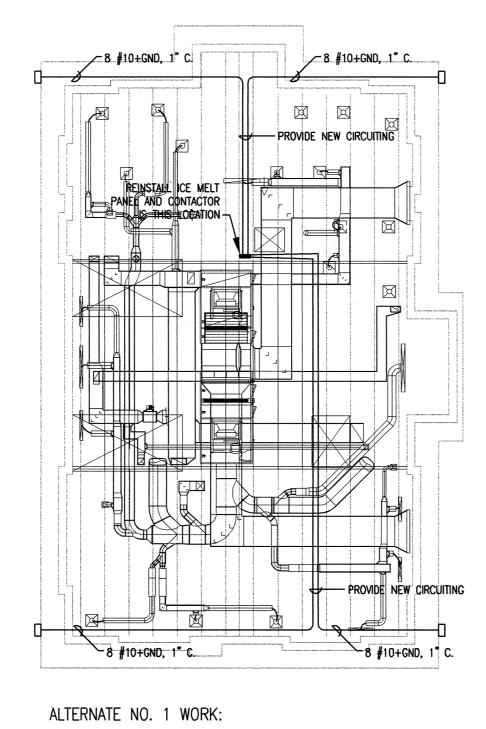


#### ALTERNATE NO. 1 WORK:

OPERATION.

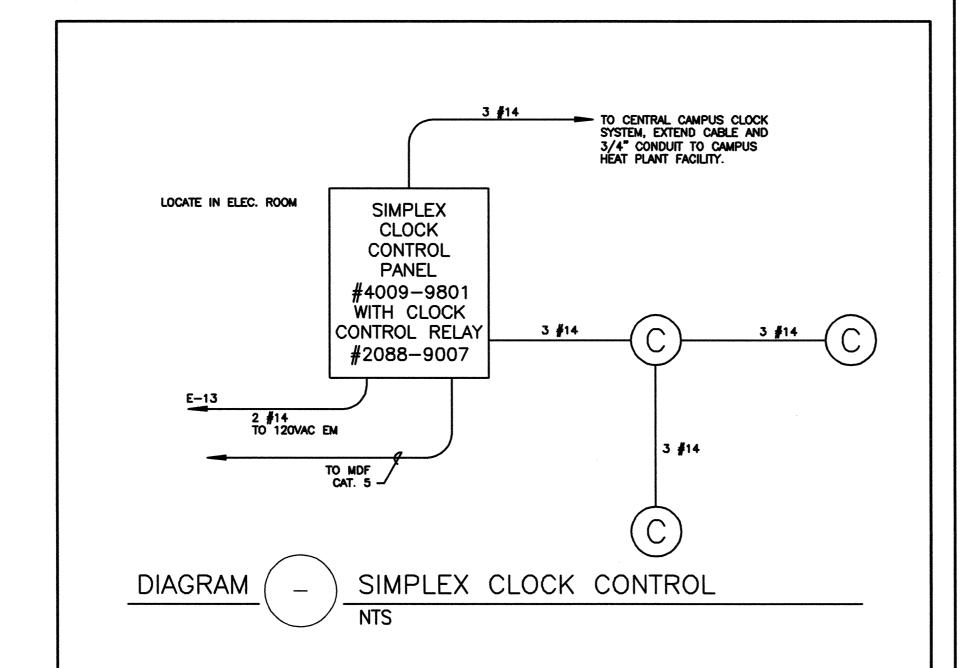
- 1. PRIOR TO REMOVAL, VERIFY SYSTEM OPERATION WITH OWNER'S REPRESANTATIVE PRESENT. DOCUMENT ANY NON-WORKING ELEMENTS.
- DISCONNECT AND REMOVE ICE MELT J-BOX BELOW EAVES. STORE AND
- REMOVE ICE MELT CABLE FROM GUTTER AND MAIN ROOF DOWNSPOUTS. STORE AND PROTECT.
- AFTER NEW ROOF IS INSTALLED, RE-INSTALL AND RECONNECT ICE MELT 4. CABLES AND EAVE J-BOXES. DEMONSTRATE SUCCESSFUL SYSTEM
- PROTECT ALL EXISTING CABLE AND EQUIPMENT FROM DAMAGE DURING 5. REMOVAL, STORAGE AND RE-INSTALLATION. REPLACE ANY DAMAGED

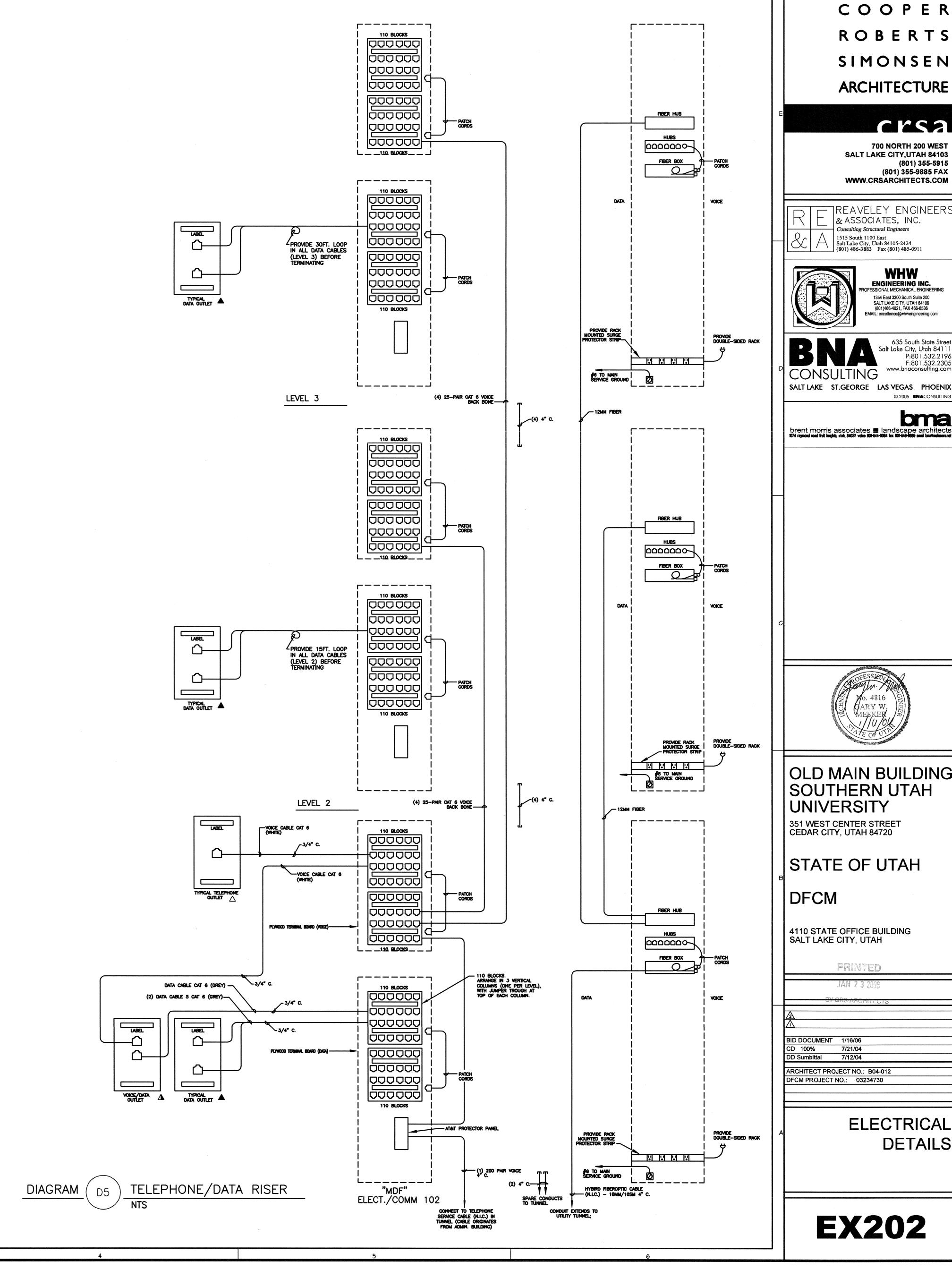
ATTIC PLAN ICE MELT SYSTEM 1/16" = 1'-0"



- 1. PRIOR TO REMOVAL, VERIFY SYSTEM OPERATION WITH OWNER'S REPRESANTATIVE PRESENT. DOCUMENT ANY NON-WORKING ELEMENTS.
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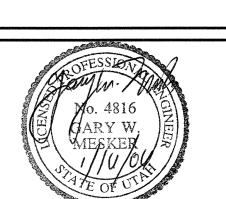
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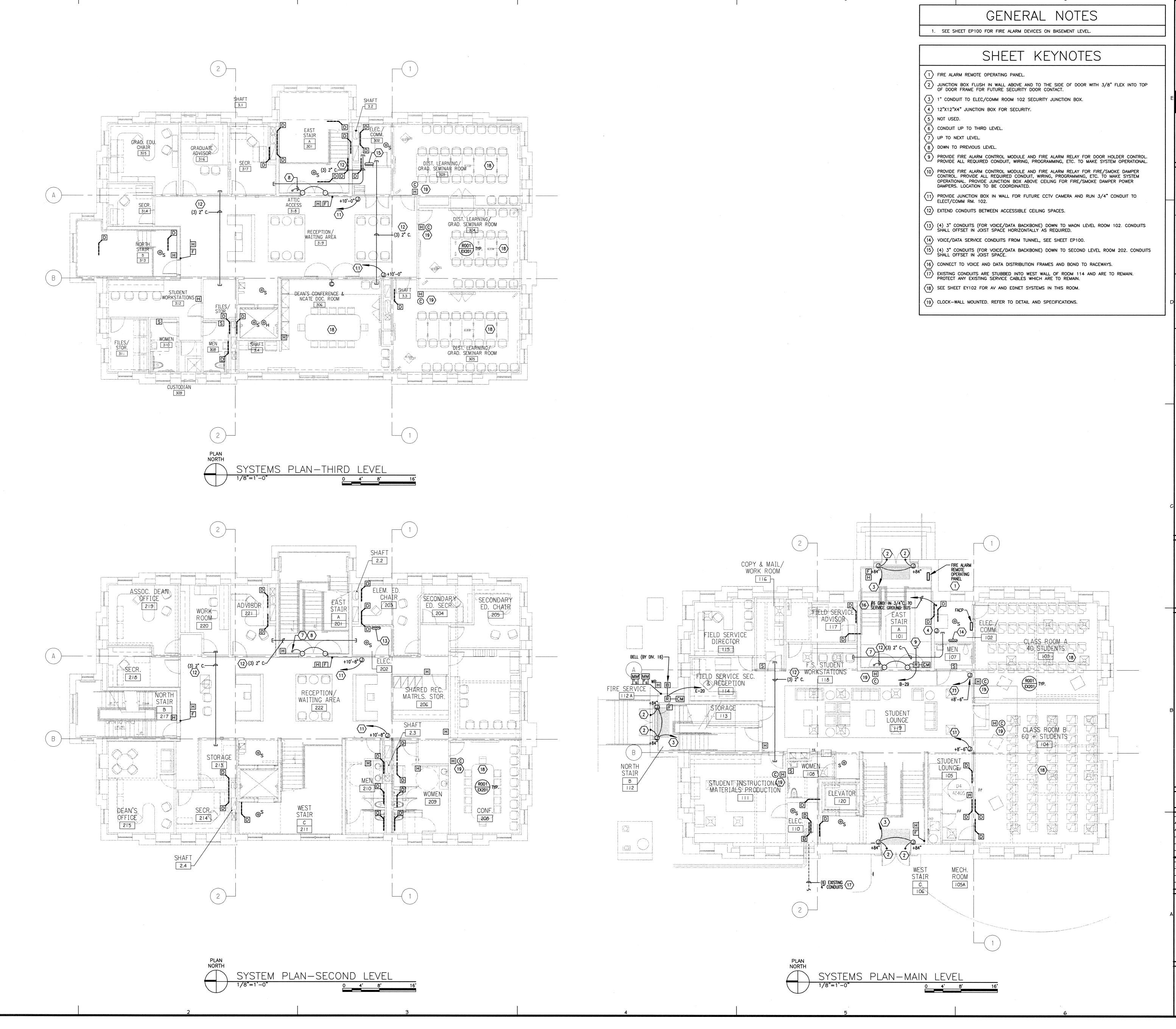


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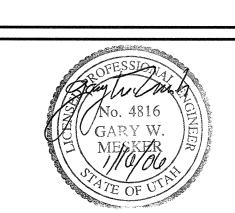
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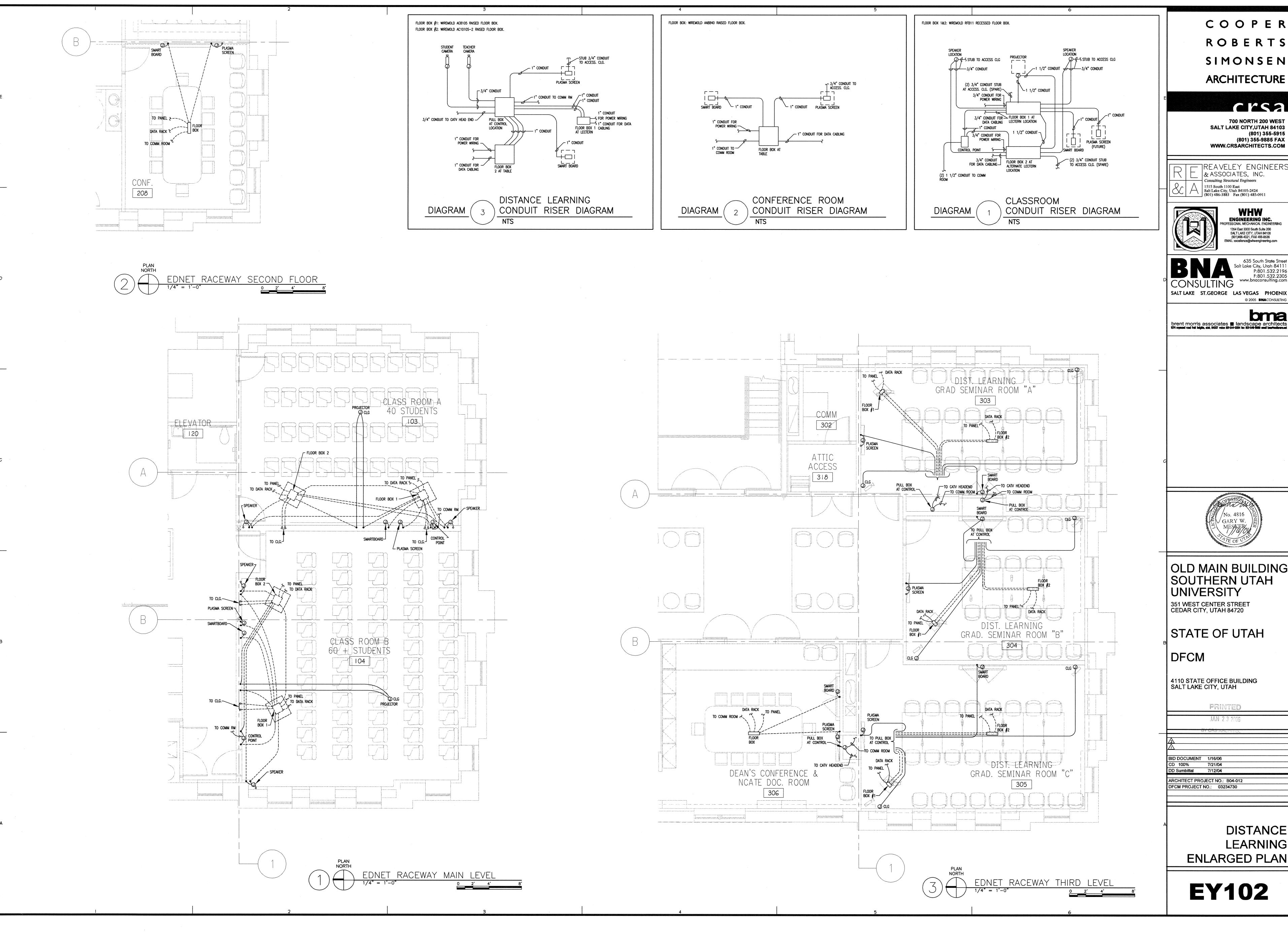
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SYSTEMS PLAN MAIN,SECOND & THIRD LEVEL

**EY101** 



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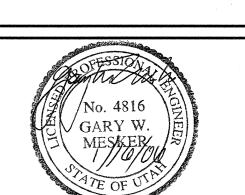
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